



COMPREHENSIVE PLAN EXISTING CONDITIONS REPORT

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Prepared for: City of Eudora, KS
Prepared by: dPlanit

TABLE OF CONTENTS

1 Historical Context

1.1	Comprehensive Plan Overview	1-1
1.2	A History of Resiliency	1-2

2 Physical Context

2.1	Planning Area	2-1
2.2	Natural Environment	2-6
2.3	Built Environment	2-8

3 Demographic / Economic Context

3.1	Community Overview	3-1
3.2	Population Characteristics	3-2
3.3	Housing Characteristics	3-8
3.4	Employment Characteristics	3-12

4 Facility / Service Context

4.1	Government Structure	4-1
4.2	Public Safety	4-3
4.3	Utilities	4-5
4.4	Education	4-11
4.4	Parks and Recreation	4-13

5 Key Planning Implications

5.1	Chapter 1, Historical Context	5-1
5.2	Chapter 2, Physical Context	5-2
5.3	Chapter 3, Demographic / Economic Context	5-5
5.4	Chapter 4, Facility / Service Context	5-6
5.5	Visual Analysis	5-8
5.6	Summary	5-10



1.1 Comprehensive Plan Overview

A comprehensive plan is a policy document designed to serve as the city's blueprint for future decisions regarding land use, growth, public services and infrastructure. Kansas state law (K.S.A. 12-746 and 12-747) provides guidance on the elements of a Comprehensive Plan and city approval and adoption processes.

The Comprehensive Plan covers a wide range of social, economic, infrastructure, and natural resource factors, including topics such as land use, housing, transportation, utilities, public services, recreation, and agriculture, among others. The Comprehensive Plan is a long-range planning document that provides guidance on reaching a goal envisioned 20 or more years in the future (this Comprehensive Plan Update will look at a planning horizon to the year 2040). To reach this envisioned future, the Comprehensive Plan will include policies and actions that address both immediate and long-term needs.

There are two primary documents within the City of Eudora Comprehensive Plan Update:

- ▶ **Existing Conditions Report.** This document provides a description and assessment of the city's existing conditions, as of 2019, within the City of Eudora and the City's Planning Area. The Existing Conditions Report is designed to summarize the existing conditions of Eudora in a concise and graphic format. Each topic includes summary text and facts capturing important highlights which are complemented by the use of maps, tables, graphs, and photos. Several issues are explored including population, building trends, land use, and the environment.
- ▶ **Comprehensive Plan.** Utilizing key themes and planning implications from the Existing Conditions Report, the Comprehensive Plan document contains the goals and policies that guide future decisions in Eudora and identifies implementation measures that are used to execute the goals and policies.

The Existing Conditions Report includes five chapters:

- ▶ **Historical Context**
- ▶ **Physical Context**
- ▶ **Demographic / Economic Context**
- ▶ **Facility / Service Context**
- ▶ **Key Planning Implications**

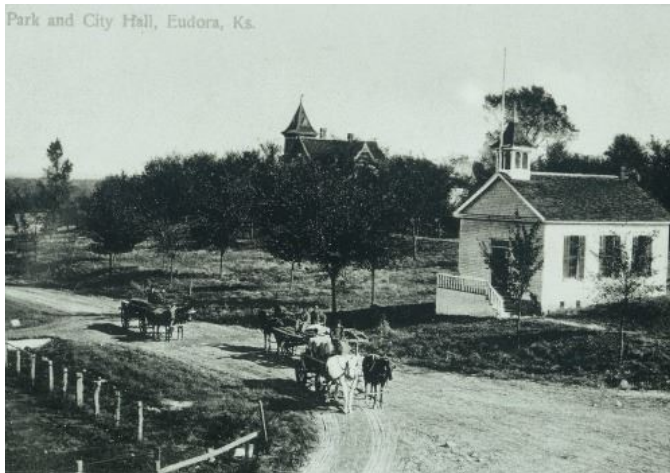
1.2 A History of Resiliency

The City of Eudora has a long history of diversity and community, that came with all the promises and fears of westward expansion in the mid-19th Century.

Historical records of the Eudora area date hundreds if not thousands of years. The history of the Eudora area predates American settlement with various Native American tribes (notably the Kansas and the Kaw) claiming the area for thousands of years. The Kaw lived along the rivers of this region until they were forcibly removed in the 1820s by the American government to make room for the Shawnee Indian tribe. The Shawnees occupied the area until 1854 when the American government again forcibly removed Native American tribes from this region.

A summarized history of the first century following settlement, is provided in **Figure 1-1**.

Between 1843 and the 1870s the Oregon Trail and Santa Fe Trail passed through the Eudora area. In 1857 the Chicago Settlement Company purchased 774.5 acres from Shawnee Chief Paschal Fish for the future development of a German immigrant community. The Germans named the community after Chief Fish's daughter, Eudora. Under Territorial laws, Eudora was incorporated as a city on February 8, 1859. The first public buildings, the Town Hall and schoolhouse, were built in 1860.



Town Hall and Park.

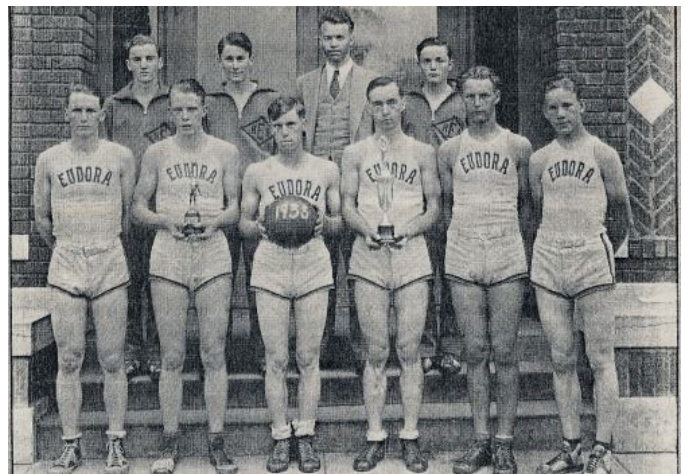
Source: Eudora Area Historical Society



Eudora's first public building (circa 1860).

Source: Eudora Area Historical Society

Eudora witnessed significant conflict during the Bleeding Kansas Era and the Civil War. Despite the racial tensions of the period, Eudora and its surrounding area were always known as a diverse community. Historical records from the Eudora Centennial Magazine noted this diversity including a population of English, German, Irish, Jewish, and Quaker settlers, as well as African Americans who were freed by the Emancipation Proclamation.



Athletic Teams. Source: Eudora Area Historical Society

The resiliency of this settlement community has been noted in many historical records which document active planning efforts on the part of the community. These include requiring private improvements based upon land uses (in 1859 fencing was required on agricultural lots), planning for large capital investments (Wakarusa bridge was planned and constructed in 1859 and 1860), and planning for railroad expansion (grading began in 1869 and construction was complete by 1872). The growth of the city was later supported by the forming of Eudora Municipal Telephone Company in 1902 and the electrical utility in 1917. With the growing popularity of the automobile, the first street paving project occurred in 1936. The Kansas 10 highway (K-10) was originally designated as a state highway in 1929 and began the process of upgrading to a freeway in 1974.

Common amongst many settler states, communities often formed vigilante organizations for mutual protection. In 1901 the Central Protective Agency (C.P.A.) Lodge No. 191 was formed to protect against horse thievery and other property protections. While the mutual protection mission of the organization may not be necessary today, the C.P.A. remains a strong community organization, most notably known for the annual C.P.A. picnic.



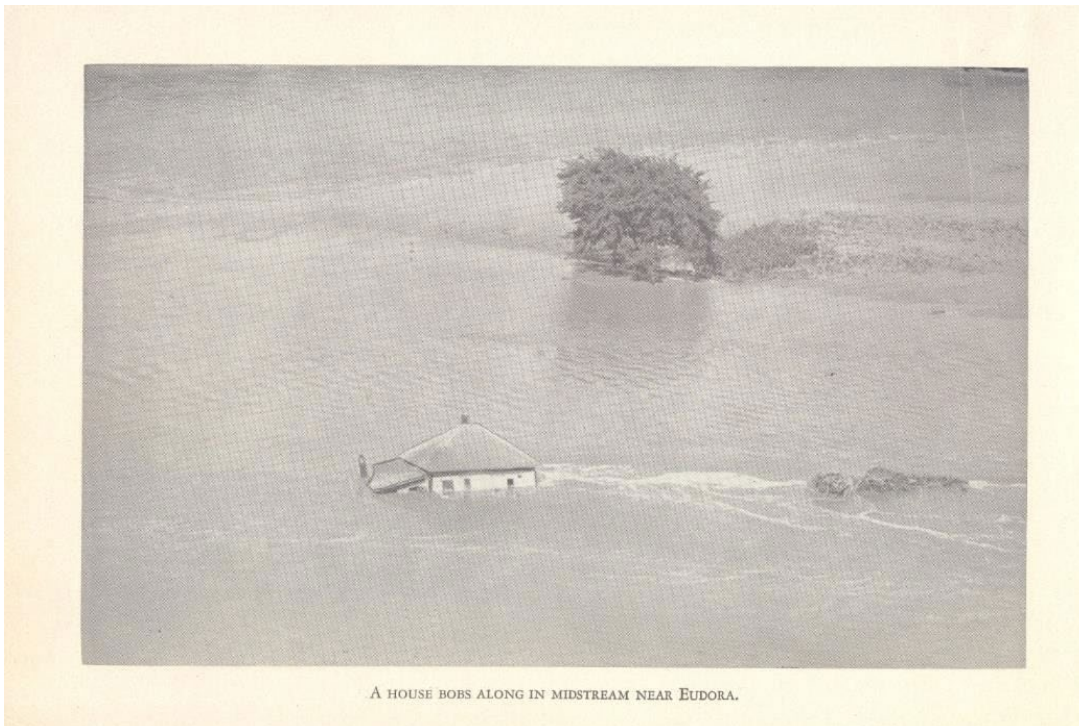
Evidence of Electrical and Railroad Infrastructure. Source: Eudora Area Historical Society

Eudora's largest period of growth was during World War II. In 1942, the Sunflower Ordnance Works project commenced. Later named the Sunflower Army Ammunition Plant, the sprawling 14-square-mile Sunflower complex was the world's largest producer of smokeless gunpowder and propellants for small arms, cannons and rockets. Within the 10,000-acre area the Army built nearly 3,000 buildings and employed about 12,000 people during World War II. After the war, the plant went on standby; however, ammunition production later resumed and continued until 1992. In 1997, the federal government designated the complex as surplus government property and began looking for buyers. To make way for re-use, the Army burned hundreds of buildings in the 1990s and early 2000s and spent approximately \$100 million on site cleanup. It has been estimated that another \$100 million more is needed to fully remediate the area of explosives residues, arsenic, lead and mercury, and other toxins in the soil.



Main Street Before and After. Source: Eudora Area Historical Society.

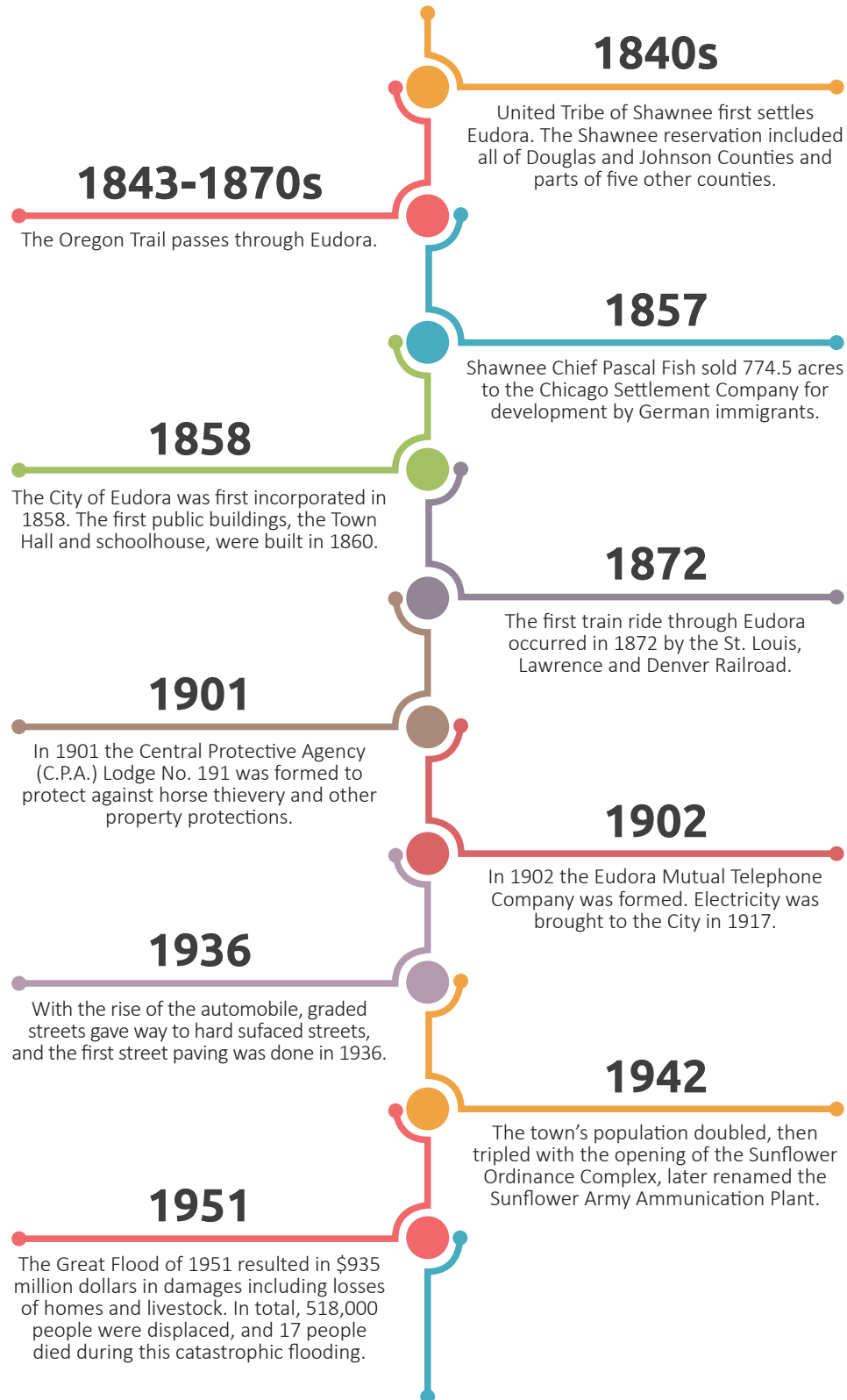
Another story of resiliency is the Eudora community's recovery after devastating flooding events. Due to its close proximity to the Kansas and Wakarusa Rivers, the Eudora area flooded in 1826, 1827, 1844, 1876, 1881, 1888, 1892, 1903, 1908, 1935, 1951, and 1993. Of all these flooding incidents, none were as devastating as the "Great Flood of 1951". In the 1951 flood the river reached 30 feet high and not only impacted Eudora but also large parts of eastern Kansas and western Missouri. The Great Flood of 1951 resulted in \$935 million dollars in damages including losses of homes and livestock. In total, 518,000 people were displaced, and 17 people died during this catastrophic flooding. After the Great Flood of 1951 significant investments were made throughout the area including dozens of dams and lakes along the river to reduce the instances and severity of flooding today. After each flooding event, the Eudora community endured and recovered.



A HOUSE BOBS ALONG IN MIDSTREAM NEAR EUDORA.

A house bobs along in midstream near Eudora. Source: Humanities Kansas

Figure 1-1: Early History of Eudora



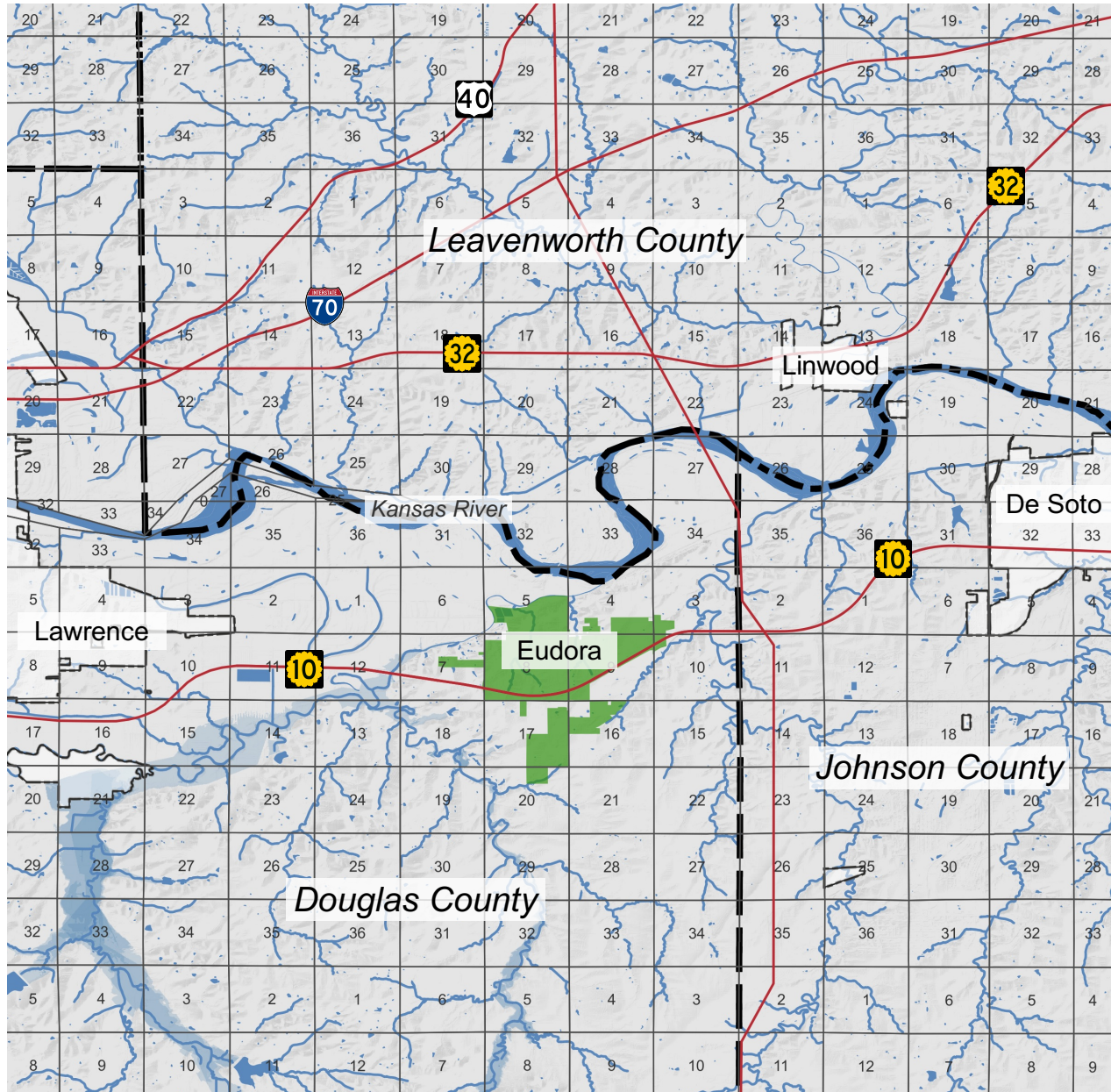


2.1 Planning Area

Regional Vicinity

Located in eastern Douglas County Kansas, Eudora is conveniently located 10 miles east of Lawrence, between Lawrence and the Kansas City metropolitan area. Regional access to and from Eudora is provided by Kansas 10 highway (K-10), which runs east-west through Eudora. The older parts of Eudora are nestled between K-10 and the Kansas River which is located at the northern extents of the city limits.

Eudora is a member of the Lawrence-Douglas County Metropolitan Planning Organization (MPO). As a member of the MPO, Eudora has steadily increased its role in the region including being involved in several regional planning efforts that have identified investments in the Eudora planning area. Eudora's location in proximity to the Lawrence and Kansas City metropolitan areas is displayed in **Figure 2-1**.



Legend

- Highway
- Eudora
- Section Lines
- County
- Hydrology
- Wakarusa Breach Area

Figure 2-1 | Regional Vicinity

Planning Area Limits

The planning area for the Eudora Comprehensive Plan comprises the Eudora city limits and the Eudora planning area. The Planning Area includes the city limits and extends beyond the city boundary to cover a larger area of influence where the City has planning jurisdiction. The City currently exercises limited extraterritorial zoning and subdivision regulation control over the areas outside of the city limits in the unincorporated area of Douglas County. This control is manifested in joint resolutions passed by the City and County, requiring joint City/County review of all development proposals within three miles of the Eudora city limits. Both jurisdictions have adopted joint subdivision regulations for portions of the designated planning area.

In late 2018, the City Commission directed the Eudora Planning Commission to proceed with creating an interlocal agreement to establish the Eudora Urban Growth Area (UGA). The request has been submitted to the Board of County Commissioners for recognition and designation of the UGA for the purpose of applying the Douglas County Subdivision Regulations. Establishing a UGA accomplishes several planning-related goals, including:

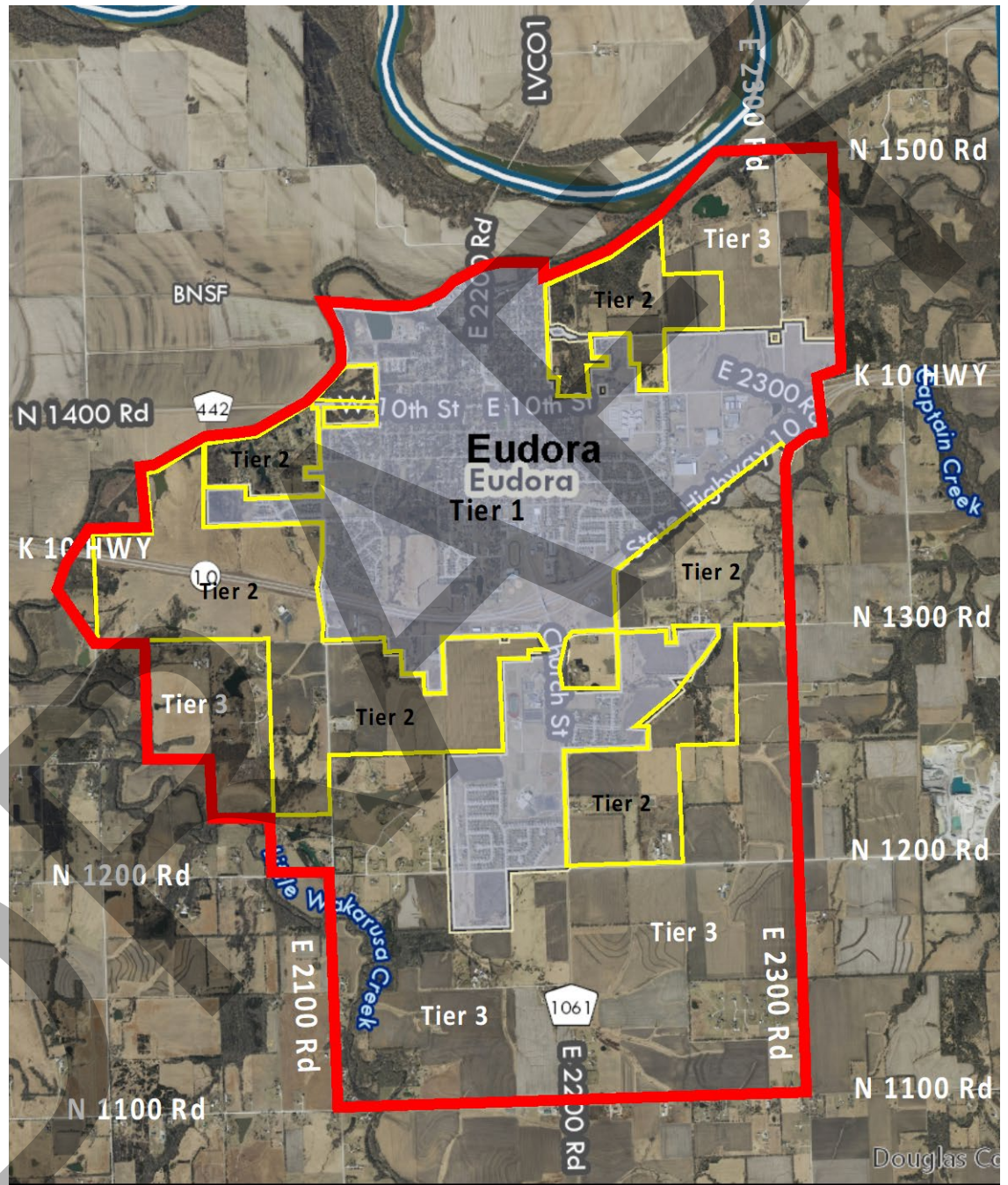
- ▶ Identifying the desired growth direction / location for Eudora so that property owners and developers can make sound investment decisions related to future development expectations;
- ▶ Matching land development density / intensity with the appropriate level of infrastructure and service support;
- ▶ Encouraging logical and cost-effective public infrastructure system expansion (e.g. roads, utilities, public services, etc.); and
- ▶ Coordinating land use, growth and development decision-making between the City of Eudora and Douglas County.

Provided in **Table 2-1** is the tier system within the UGA which is based on the current infrastructure / utility availability or future provision of infrastructure and utilities in an efficient and cost-effective manner. **Figure 2-2** illustrates the UGA and the planning Tiers.

Table 2-1: Urban Growth Area Planning Tiers

Tier	Characteristics
Tier 1	<ul style="list-style-type: none"> • Tier 1 land is prioritized for development at any time. • Area within Eudora City Limits or islands of unincorporated area surrounded by the City • Readily serviceable with utilities (water, sewer, stormwater) with minor system enhancements • Serviceable by fire with current infrastructure • Develop to suburban and urban standards per adopted plans and policies
Tier 2	<ul style="list-style-type: none"> • Tier 2 land shall be annexed when the need to accommodate demand is established. • Within the UGA, adjacent to or near existing City Limits requiring annexation or annexation agreement and acceptance of future benefit district implementation (as needed) • Readily serviceable with utilities with minor system enhancements necessary for development • Readily serviceable by fire with current infrastructure and/or minor adjustments • Develop to suburban and urban standards per adopted plans and policies
Tier 3	<ul style="list-style-type: none"> • Tier 3 land that is not designated to be annexed within the 20-year planning horizon of this Comprehensive Plan. • Develop to rural standards (20-acre parcels or larger) while planning for future urban growth at a point beyond the time horizon of the comprehensive plan • Major utility system enhancements, expansions, extensions necessary for development (e.g. treatment plant, water tower, major distribution or collection line) • Requires investment in fire infrastructure and personnel

Figure 2-2: Urban Growth Area and Planning Tiers



City of Eudora Future Growth Policy Map

Tier 1

Tier 2

Tier 3

UPDATE City of Eudora, Kansas 11/05/19

Related Plans and Studies

The built environment of the City of Eudora has been studied in several previous planning efforts. In some instances, Eudora was a direct focus of the planning effort, and in other instances Eudora may have been a component of a larger, regional study. Findings from these studies are valuable to this Comprehensive Plan Update as they have contributed to the development present today and a vision for the future. Furthermore, reviewing previous plans and studies ensures the existing conditions assessment is consistent with past efforts and their decision-making processes. When modifications to previous recommendations are justified, they are documented as part of this Comprehensive Plan Update effort. Provided in **Table 2-2** is a summary of the key plans and studies with relevance to the Comprehensive Plan Update. Publishing agencies include the City of Eudora, Douglas County, and the Lawrence-Douglas County Metropolitan Planning Organization.

Table 2-2: Related Plans and Studies

Publishing Agency	Title	Publishing Date
City of Eudora	Comprehensive Plan	2003
	Economic Development Plan	2010
	Parks and Recreation Master Plan	2012
	Report on Electric Cost of Service and Rate Design	2017
	Fire and EMS Department Strategic Plan	2018
	Drinking Water System Preliminary Engineering Report	2019
	Capital Improvements Plan	2019-2023
	Wastewater Treatment and Collection System Facility Plan	2019
	[Electric] Distribution System Study	2019
	Storm Sewer System Study	2021
Douglas County / Lawrence-Douglas County Metropolitan Planning Organization	Eudora Sidewalk Inventory Memo	2014
	Transportation 2040	2018
	Plan 2040 Comprehensive Plan	2019

2.2 Natural Environment

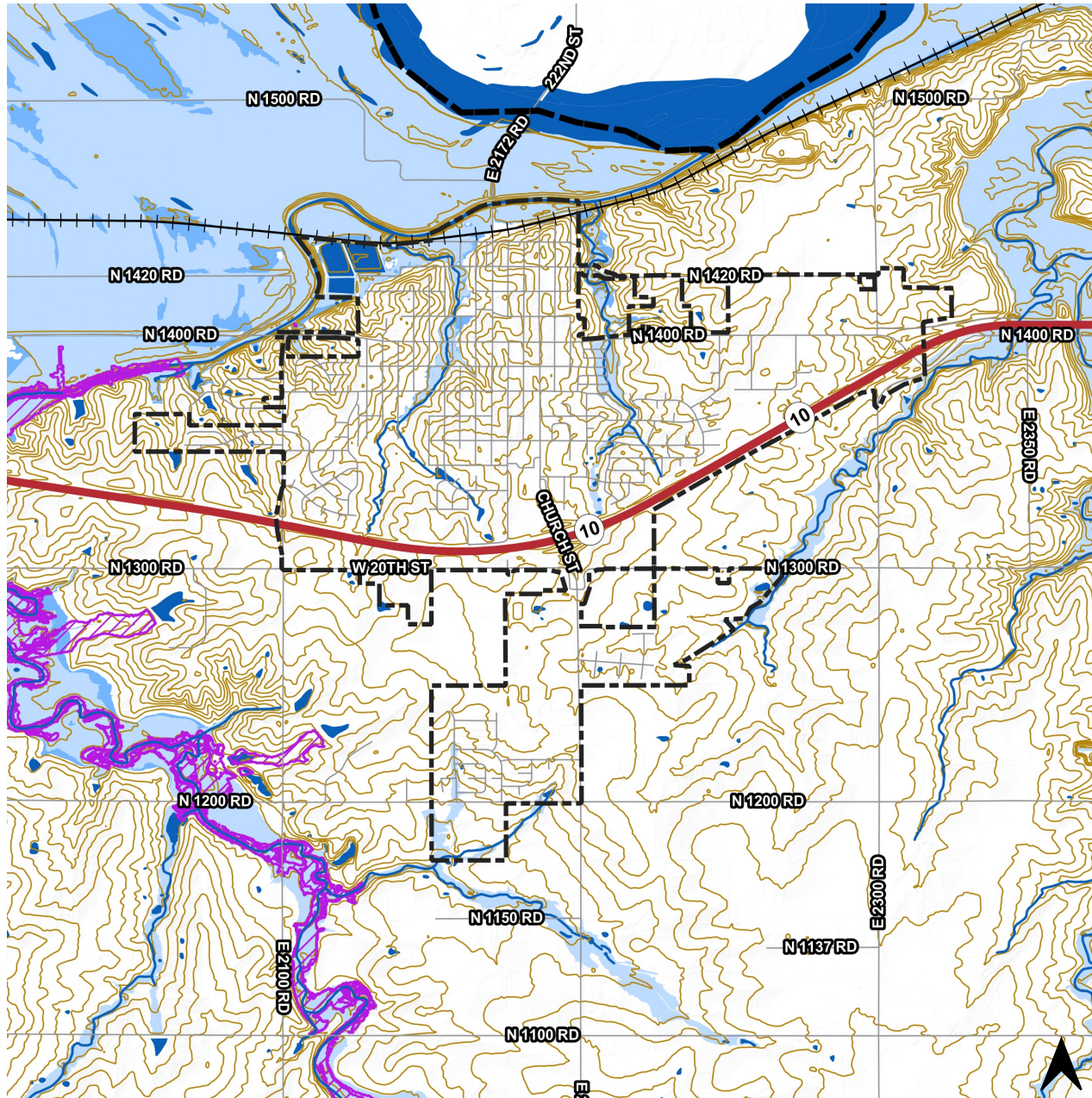
Fertile soils, moderate terrain, and access to fresh clean water is what drew immigrants to Kansas when Eudora was first settled. The same holds true today. Provided herein are descriptions of the natural features of the Eudora planning area.

Soils and Topography

Eudora is sited on a terrain of gently rolling slopes. Most slopes have a grade of less than 6%, though some drainage areas have slopes exceeding 6%. **Figure 2-3** includes 10-foot contour lines. The more concentrated the contour lines the steeper the slope. As can be seen in the figure, areas to the west and east of the city limits include moderate to steep slopes. As documented in the 2003 Comprehensive Plan, soils within the Eudora planning area provide some limitations to existing and future development. The 2003 plan noted soils with limitations for septic systems and residential and non-residential building as defined by the USDA Soil Conservation Service 1976 Soil Survey of Douglas County (compiled in 1976, issued in 1977). The soil limitations were documented in four categories: floods and wetness, severe shrink-swell and slow percolation, shallow depth to rock, and stony. Soils in these categories may include a variety of soil types, but in each case the soils were identified as having moderate to severe limitations to shallow excavations, development of dwellings (with and without basements) and small commercial buildings, or sanitary facilities. Per the Soil Survey, moderate limitations are defined as soil properties and site features that are unfavorable, but which may be overcome with specific design and planning. Severe limitations are defined as soil properties or site features that are so unfavorable or difficult to overcome that a major increase in construction effort, special design, or intensive maintenance is required. Some soils rated as severe may be considered cost prohibitive to development.

Hydrological Features

The City of Eudora is located south of the Kansas or Kaw River and Wakarusa River. The Eudora planning area is contained in three watersheds of the Wakarusa River, including: Eastern Tributary, Middle Tributary, and Western Tributary. Although the area is relatively flat and creates few development limitations, scattered floodplains exist along the tributaries of the Wakarusa River, particularly the Middle Tributary. In addition, the many creeks and streams that feed these tributaries create obstacles to efficient development and opportunities for creative development solutions. **Figure 2-3** illustrates the approximate location of the existing streams, rivers and other hydrological features, as well as the boundaries of the 100- and 500-year floodplain. A substantial portion of the lands located north of the Wakarusa River are in the floodplain and are subject to periodic flooding. These areas are considered undesirable for development. Both Douglas County and Eudora are part of the regular program of flood insurance as operated by the Federal Emergency Management Agency (FEMA). Because the 100-year floodplain is defined as the area having a one percent chance of flooding in any given year, appropriate development controls have been implemented to protect the public health, safety and welfare of the community. In addition, floods larger than the 100-year flood do occur and the City will continue to exercise care in evaluating new development which could aggravate or create flood problems in the planning area.



Legend

- | | | |
|----------------------|-----------------|-------------|
| Hydrology | 10 Foot Contour | City Limits |
| Wakarusa Breach Area | Highway | County |
| 100 Year Floodplain | Road | |
| 500 Year Floodplain | Railroad | |



Figure 2-3 | Natural Features

2.3 Built Environment

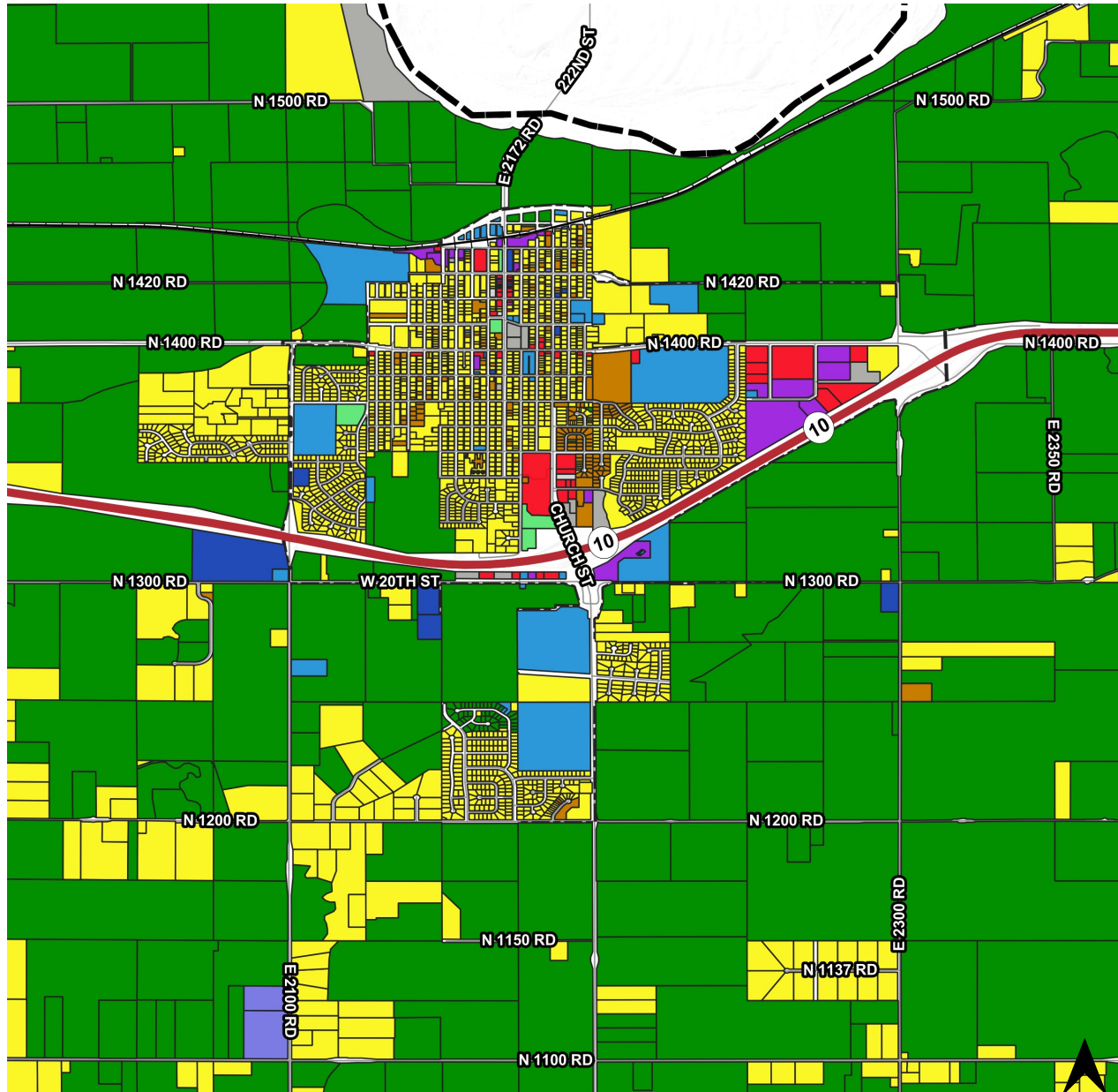
The Built Environment of Eudora consists of a series of properties that are governed through land use policies and zoning regulations. The property sizes vary considerably as well as the context of the areas they are located in and the transportation system that provides access to and from the property. This section includes descriptions of the existing land use, zoning, parcel sizes, and transportation system.

Existing Land Use and Zoning

Existing Land Use and Zoning are often synonymous in the Eudora Planning Area. This is because the City and County have consistently tied land use and zoning decisions to one another. The Zoning Code of the City of Eudora sets forth the zoning districts and regulations for all properties within the city limits. Additionally, the Subdivision Regulations are used to regulate development both within the city limits and within the unincorporated Eudora Planning Area.

The predominant land use and zoning within the city limits is that of low-density residential. The zoning pattern is varied primarily in the historic core of the community where a mix of higher-density residential, non-residential, public and semi-public zoning is concentrated in and around the downtown. Higher-intensity zoning also exists in clusters around the two interchanges with K-10 Highway.

Within the unincorporated planning area, land is predominantly zoned for rural residential and agricultural uses. The Agricultural zoning district allows for a full range of agricultural activities. The Suburban Home zoning district provides for single-family residential development of a suburban character, with limited public and semi-public facilities, and related accessory uses. Low-density suburban development typically poses a threat to future expansion of development and provision of infrastructure services. This is particularly important as it relates to the City's ability to continue to grow along the K-10 Highway corridor. **Figure 2-4** displays the existing land use in the Eudora Planning Area and **Figure 2-5** displays the zoning districts within the Eudora Planning Area.



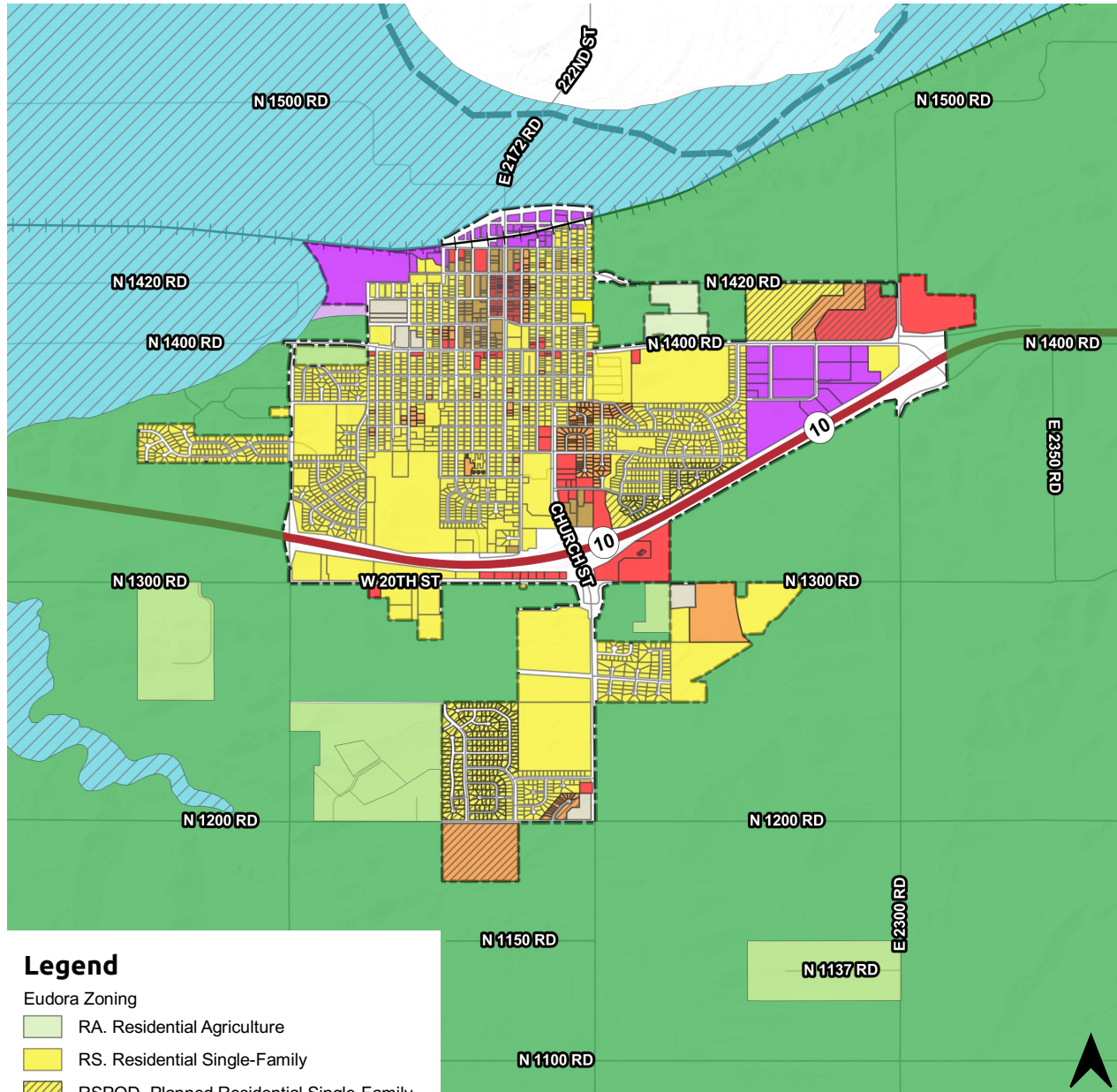
Legend

Highway	Existing Land Use: Single-family Residential	Transportation
Road	Multi-family/Mobile Homes	Gathering/Assembly
Railroad	Commercial	Leisure
County	Industrial	Natural Resources
City Limits	Institutional	Vacant/Unclassified

0 0.25 0.5 0.75 1 mi



Figure 2-4 | Existing Land Use



Legend

Eudora Zoning

- RA. Residential Agriculture
- RS. Residential Single-Family
- RSPOD. Planned Residential Single-Family
- RT. Residential Two-Family or Duplex
- RTPOD. Planned Residential Two-Family
- RM. Residential Multifamily
- RE. Residential Elderly Housing
- DC. Downtown Commercial
- C. Commercial
- CPOD. Planned Commercial
- I. Industrial

Douglas County Zoning

- A. Agricultural
- A-1. Suburban Home Residential
- I-2. Light Industrial
- V-C. Valley Channel

Highway

- Road
- Railroad
- County Limits
- City Limits

Figure 2-5 | Existing Zoning

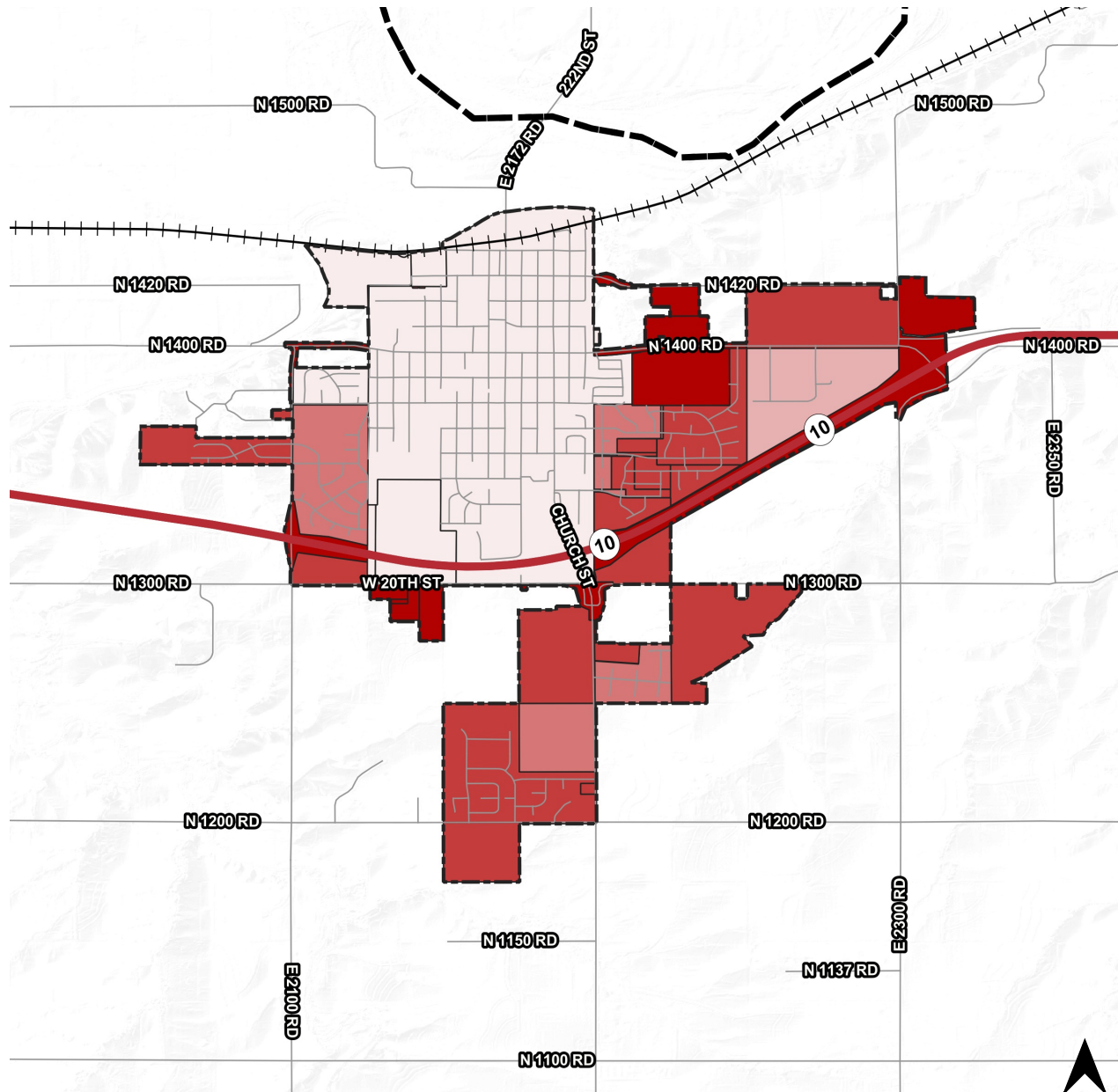
Historical Annexation and Parcel Acreage

Parcel size provides an indicator of future development potential. Generally, the smaller the parcel the less likely that redevelopment is a potential. Small lots indicate a high probability that parcels would have to be assembled from multiple owners, and that existing development and site improvement could hinder redevelopment. However, small residential lots and their corresponding density are indicators of the likelihood that urban services could be provided cost effectively.

In the 1990s, Eudora experienced growth in the fringe areas of the city. This development was predominantly suburban in character with an average parcel size under $\frac{1}{4}$ acre. Growth in the unincorporated areas surrounding Eudora was generally rural in nature, with the predominant lot size ranging from two to 20 acres. As opposed to agricultural parcels of 40 acres or more, parcels in the two- to 20-acre range can provide limitations to future provision of urban services. These limitations often stem from opposition to urban development and the limited ability to redevelop in order to make provision of urban services feasible and cost effective. Although much of the land within the planning area is 40 acres or greater and provides ample opportunity for future urban expansion, the City should be aware of the impact of rural residential development within the City's planning area. In order to minimize future limitations to cost-effective provision of urban services, and future hardship on rural residential property owners, the City should work closely with rural property owners and Douglas County staff and officials to ensure that proposed rural development and infrastructure services provided is adequately considered. This is particularly important in accommodating future development and improvements planned for Eudora and the surrounding growth areas. **Figure 2-6** illustrates the history of annexations within the Eudora planning area. **Figure 2-7** illustrates the acreage of parcels within the City and County.

Neighborhoods and Districts

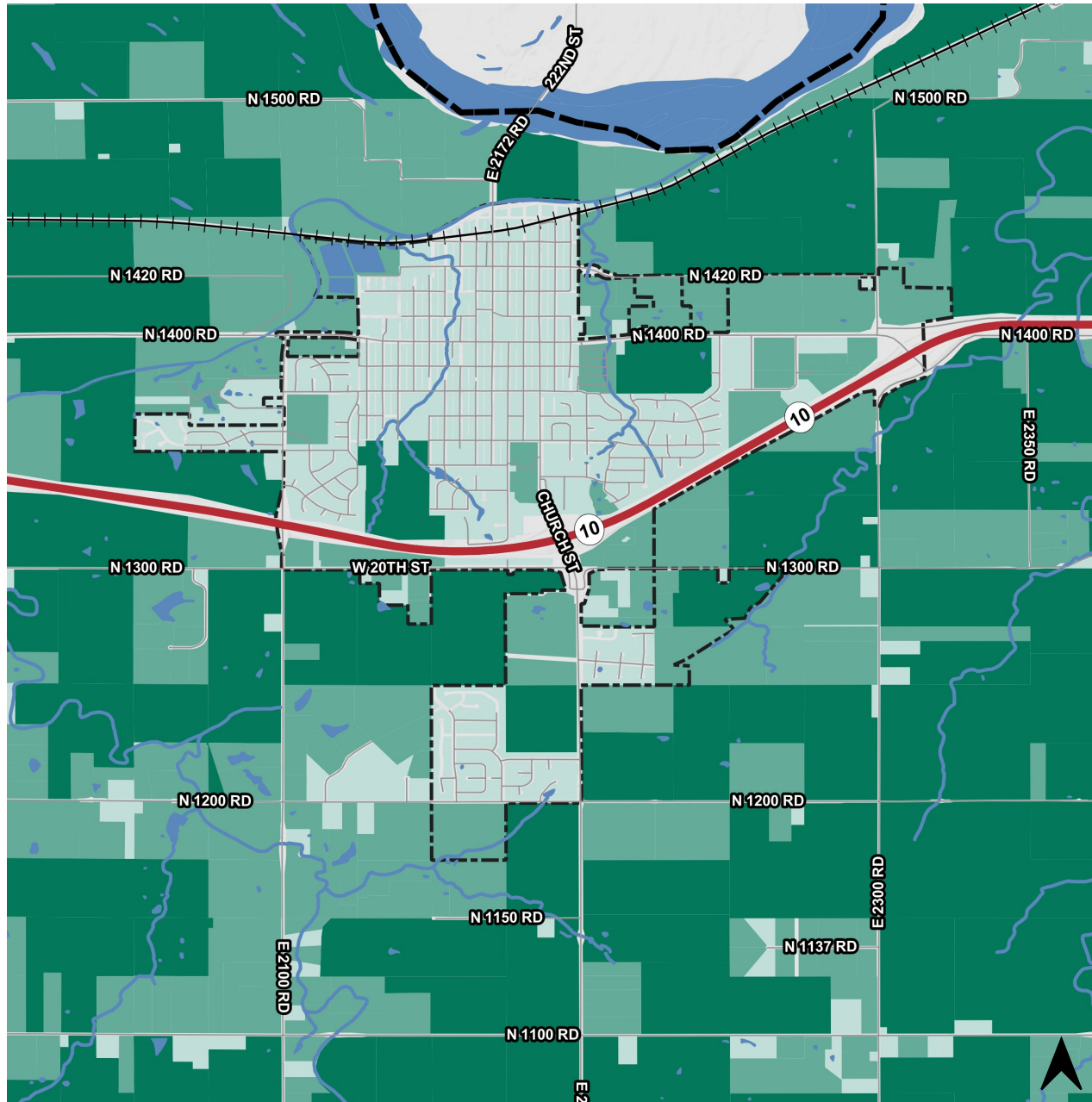
Districts and neighborhoods are areas of a community that have a distinctive character from the remainder of the community. In Eudora, Main Street is perhaps the most notable district. The historic character and charm of Main Street is unique not only in Eudora but in much of the Midwest. Another district in Eudora is the concentration of educational facilities at the Eudora Middle School and Eudora High School. The concentration of these educational facilities at one location creates a campus-like environment. The remainder of Eudora consists of either rural/agricultural development character or residential neighborhoods. The neighborhoods consist of some 111 different subdivision plats. These neighborhoods can be characterized by the period in which they were developed and the community amenities nearby. The "Traditional Neighborhoods" are the residential areas surrounding Main Street. The Traditional Neighborhoods were developed in the form of the traditional street grid providing great connectivity to and through the neighborhood. A grouping of neighborhoods surrounding Abraham Still Park was developed in the 1980s and 1990s; these neighborhoods have easy access to the Abraham Still Park community amenities as well as Eudora Elementary School. Another grouping of neighborhoods surrounding Bluejacket Park was developed in the 1980s and 1990s; these neighborhoods have easy access to the Bluejacket Park community amenities as well as the Eudora Schools West Resource Center.



Legend

	Highway		Annexations
	Road		Before 1978
	Railroad		1978 - 1988
	County		1988 - 1997
	City Limits		1997 - 2007
			After 2007

Figure 2-6 | Historical Annexations



Legend

Highway	Hydrology	Parcel Acreage
Road	County	
Railroad	City Limits	
		0 - 5
		5 - 40
		40 +



Figure 2-5 | Parcel Acreage

Transportation System

Transportation is an important asset to the community. It provides mobility for residents as well as opportunities for economic development. Modern community transportation systems consist of a network of roads and off-street facilities that accommodate multiple modes of transportation. The modes of transportation presented herein include the Road Network, Bicycle Network, Pedestrian Network, and Transit Services. **Table 2-3** provides a summary of the Eudora transportation network and the transportation network of the Lawrence-Douglas County Metropolitan Planning Organization (MPO).

Table 2-3: Eudora Transportation System Statistics

		City of Eudora	MPO Total
Pedestrian Network	Sidewalk (miles)	17.1	427.9
	Curb Ramps	310	8,798
Road Network	Roadway (miles)	34.5	794.9
	2016 % Good	78%	n/a
	Bridges	10	293
Bicycle Network	Bikes Lanes (miles)	0	15.9
	Bike Lanes with Paved Shoulders (miles)	0	42.6
	Shared Lane Markings (miles)	0	4.9
	Shared Use Paths (miles)	1.4	49.9

Source: Lawrence-Douglas County MPO, 2017

Pedestrian Network

The Pedestrian Network in Eudora currently consists of a network of 17.1 miles of sidewalk and 2 miles of paths. The most recent addition to the pedestrian network is the Eudora South Trail Phase II, a 0.66-mile shared use path. In 2014 the MPO produced a Sidewalk Inventory Memo which identified notable gaps in the pedestrian network. Eudora has missing sidewalks throughout the community. The only locations that have sidewalks are some in the core of town and on one side of the street in the newer curvilinear residential developments. These sidewalk gaps were identified in the MPO's Transportation 2040 Plan and several were identified as high priority projects.

Road Network

Eudora's road network is well connected with the Kansas 10 Highway (K-10) providing the City's connection to the surrounding region including Lawrence and Kansas City. Two primary points of access exist to Eudora from K-10: the interchange with Church Street/County Road 1061; and the interchange with 10th Street/County Road 442. The limited access to K-10 creates increased demand on Church Street/County Road 1061, 10th Street/County Road 442, Winchester Road, Main Street, Elm Street and 12th Street. Portions of these streets are designed to standards

below their current functional operation. As Eudora grows, these streets will need to be improved and new streets with community connectivity will be required.

The original City of Eudora was platted with uniform street locations as part of a “grid” street network pattern. Within a grid pattern each street may provide a variety of functions, such as neighborhood access to residential properties, local access to businesses and public facilities, and regional access within the community. As was typical with many grid systems, almost all streets were initially improved to the same standards as opposed to modern hierarchal systems where the street is improved based on its function and corresponding traffic volumes. Roads are designed for different functions - while they all facilitate the movement of goods and people; they do so in varying degrees. A roadway's purpose ultimately influences a roadway's design and also influences the types of land uses adjacent to the road. A functional classification system is used to identify the difference between roadways and their purposes.

Douglas County's Access Management regulations serve to increase the safety of the traveling public by reducing vehicle conflict points, extending the functional life of roadways, and preserving roadway corridors. The County's Access Management road classifications may differ from the Federal Functional Classification since the County classifications are more locally focused and consider future use of the road corridor in addition to current road use. The access management road classification determines minimum width of required right-of-way, the number and spacing of entrances allowed, and other developmental characteristics. Provided below are descriptions of each County road classification.

- ▶ **Principal Arterial.** Principal Arterials are major roads with a primary mobility function that are designed to move traffic across town, connect neighborhoods, and provide access to major activity centers in the region. These roads carry traffic to, from, and through the region. They are typically viewed as the major roads for the area, have some of the highest traffic volumes, serve longer trip lengths than other surface streets, and carry a high proportion of the area's traffic on a small percent of the road mileage. Principal Arterials in the Eudora planning area include E 2200 Road/Church Street.
- ▶ **Minor Arterial.** Minor Arterial roads have a primary mobility function that are designed to connect to and supplement the principal arterials while providing connections between neighborhoods and connections to some major activity centers. These roads may place more emphasis on land access than principal arterials. They may serve smaller cities and population centers not served by principal arterials. Minor Arterials in the Eudora planning area include CR-442/Old K-10/10th Street and Main Street.
- ▶ **Major Collector.** Major Collector roads have a relative balance between mobility and property access functions, bring traffic to higher class roads, connect to smaller activity centers, and serve important travel corridors in the region which are not served by higher class roads. There are no Major Collectors in the Eudora planning area.

- ▶ **Minor Collector.** Minor Collector roads have a balance between mobility and property access functions, supplement major collectors, bring traffic to higher class roads, and may provide connections to small local activity centers. Minor Collectors in the Eudora planning area include E 2100 Road, E 2300 Road, T 12 S, N 1300 Road, N 1200 Road, N 1100 Road, and 12th Street.
- ▶ **Local.** Local roads are public roadways that have a primary purpose of property access or are not classified by the metropolitan planning organization. They provide the lowest level of mobility and are designed for short trips leading to nearby destinations in the same neighborhood or provide a connection from land uses to a higher-class road. Longer through trips along these roads should be discouraged. The remaining public roads within the Eudora planning area are classified as Local roads.

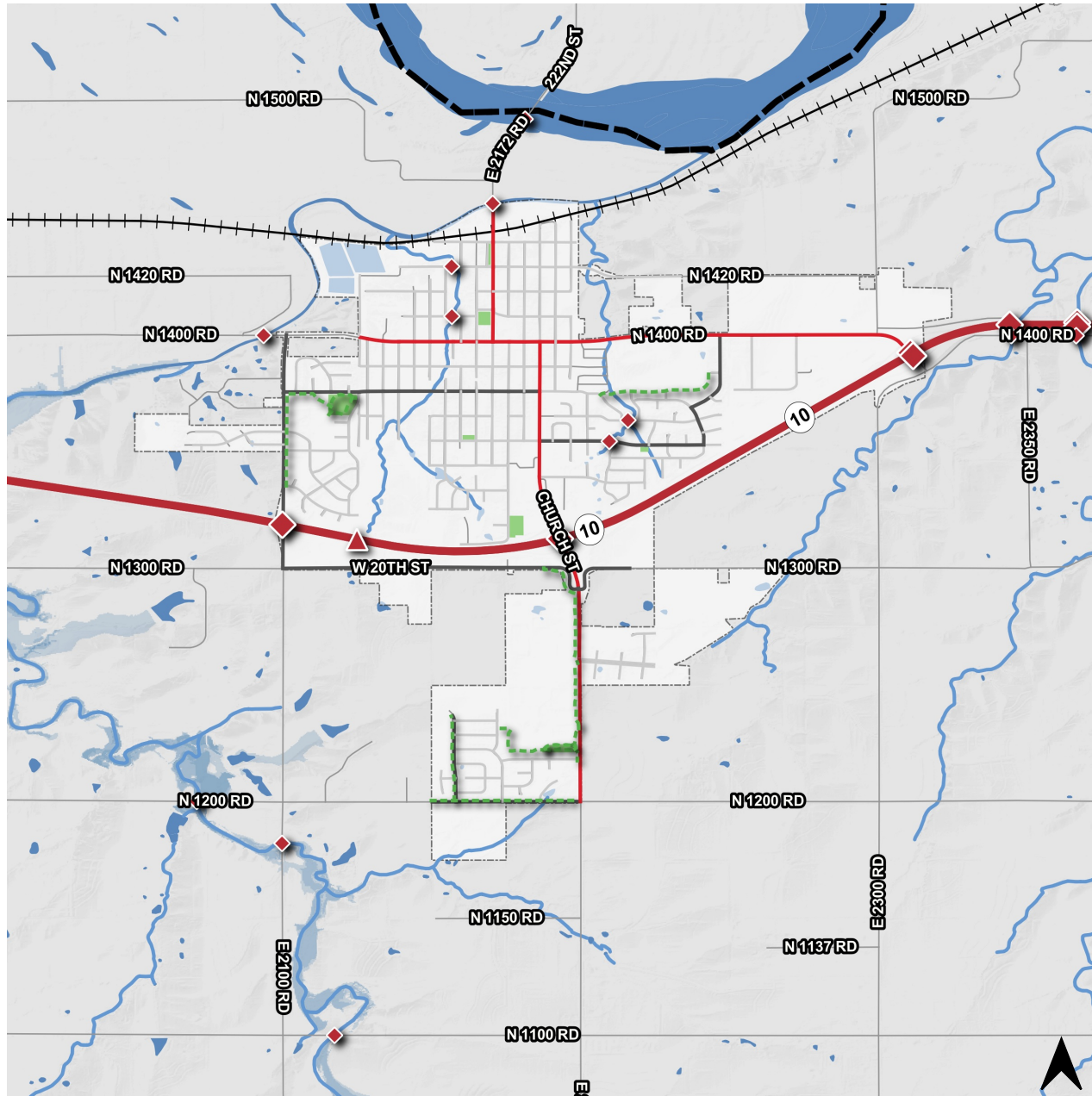
As a result of its grid system and uniform street improvements, Eudora does not have a clearly defined street hierarchy. However, certain roads function as arterials, collectors, or local streets, as illustrated in **Figure 2-8**. The City has its own road hierarchy, separate from the County Access Management standards. In many cases, the classifications between the City and County standards are consistent. Within Eudora, 10th Street, Main Street north of 10th Street, Church Street south of 10th Street, Winchester Road and County Road 1061 function as arterial streets, with concentrated commercial or industrial development and higher traffic volumes, higher travel speeds and the ability to move large amounts of traffic. The collector streets include many of the east-west roadways, including 12th Street, 14th Street, 20th Street and 28th Street.

Bicycle Network

The Bicycle Network in Eudora currently consists of four separated off-street path facilities totaling 2 miles. The most recent addition to the bicycle network is the Eudora South Trail Phase II, a 0.66-mile shared use path. Two separate planning efforts have identified additional bicycle facilities in Eudora. The Lawrence-Douglas County MPO Transportation 2040 Plan identifies a network of future bike routes and bike lanes. The City of Eudora Parks and Recreation Master Plan identifies a network of future trails, sidewalks, bike routes and bike lanes.

Transit Service

There is currently no existing or planned transit service for the Eudora community. In the MPO's Transportation 2040 planning process there were comments from residents desiring transit service in Eudora as well as transit to connect to regional services in Lawrence and Kansas City. While these recommendations did not make it into the final Transportation 2040 Plan, it's important to note a community desire for transit service to connect to local and regional destinations.



Legend

- | | | | |
|---------|-----------|-------------|----------------------|
| Culvert | Arterial | Trail | Hydrology |
| Bridge | Collector | County Road | Wakarusa Breach Area |
| Highway | Local | Railroad | County |
| | | Park | |



Figure 2-7 | Transportation System

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3.1 Community Overview

The socioeconomic conditions of a community provide critical information for the City in determining not only the current population to plan public services for but also in determining the rate of growth and planning for infrastructure service delivery. Provided in this chapter is information on the existing conditions of the community in terms of population, housing, and employment.

The Population Characteristics section of this chapter includes the existing population and population trends, the population projections, and the population density, as well as race and ethnicity, age and gender, education, and income and poverty. The Housing Characteristics section of this chapter includes information on the number of households, the year the structure was built, occupied v. vacant housing, and owner-occupied v. renter occupied units. The Employment Characteristics section includes information on the labor force participation rate, as well as the employment occupations and employment industries of Eudora residents.

3.2 Population Characteristics

Population

According to the latest population estimate published by the U.S. Census Bureau in 2017, Eudora had a population of 6,272. This new population total is a 2.22% increase from the population total in 2010 (6,063). Over this same period of time (2010 to 2017) the Lawrence MSA population grew by 6.3% and the U.S. population grew by 3.97%. Across all geographies this is considerably less growth than was realized between 2000 and 2010. Between 2000 and 2010, the Eudora population grew by 42.47%, the Lawrence MSA population grew by 10.87% and the U.S. population grew by 9.71%.

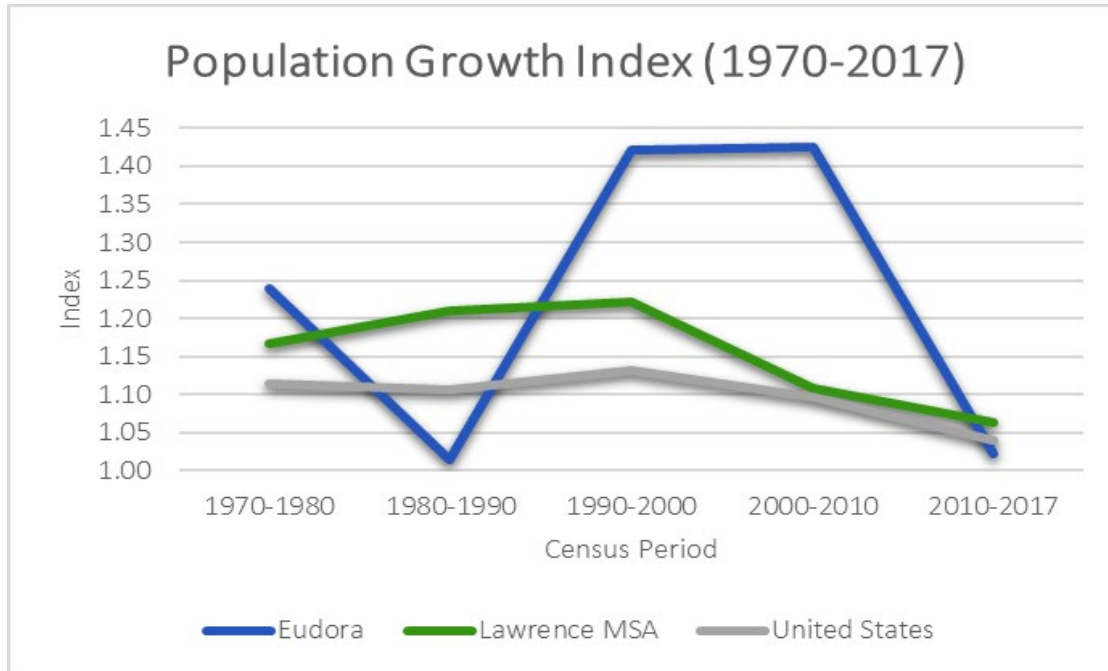
Figure 3-1 and **Table 3-1** summarizes these trends and illustrates that notable growth has been occurring since 1980. While all geographies are continuing to grow, the growth index is considerably lower across all geographies between 2010 and 2017. These population growth rates are consistent with those published in the 2003 Comprehensive Plan. Using Kansas Water Authority Projections, the 2003 Comprehensive Plan documented that Eudora's population was projected to increase to 6,363 by 2020. In 2017 Eudora was just 91 people short of the 2020 projected target.

Table 3-1: Population Growth (1970-2017)

	Eudora	Lawrence MSA	United States
1970	2,411	57,937	201,606,786
1980	2,990	67,642	224,810,186
1990	3,032	81,798	248,709,166
2000	4,307	99,962	281,421,906
2010	6,136	110,826	308,745,538
2017	6,272	117,806	321,004,407
% change 2000-2010	42.47%	10.87%	9.71%
% change 2010-2017	2.22%	6.30%	3.97%

Source: U.S. Census Bureau

Figure 3-1: Population Growth (1970-2017)



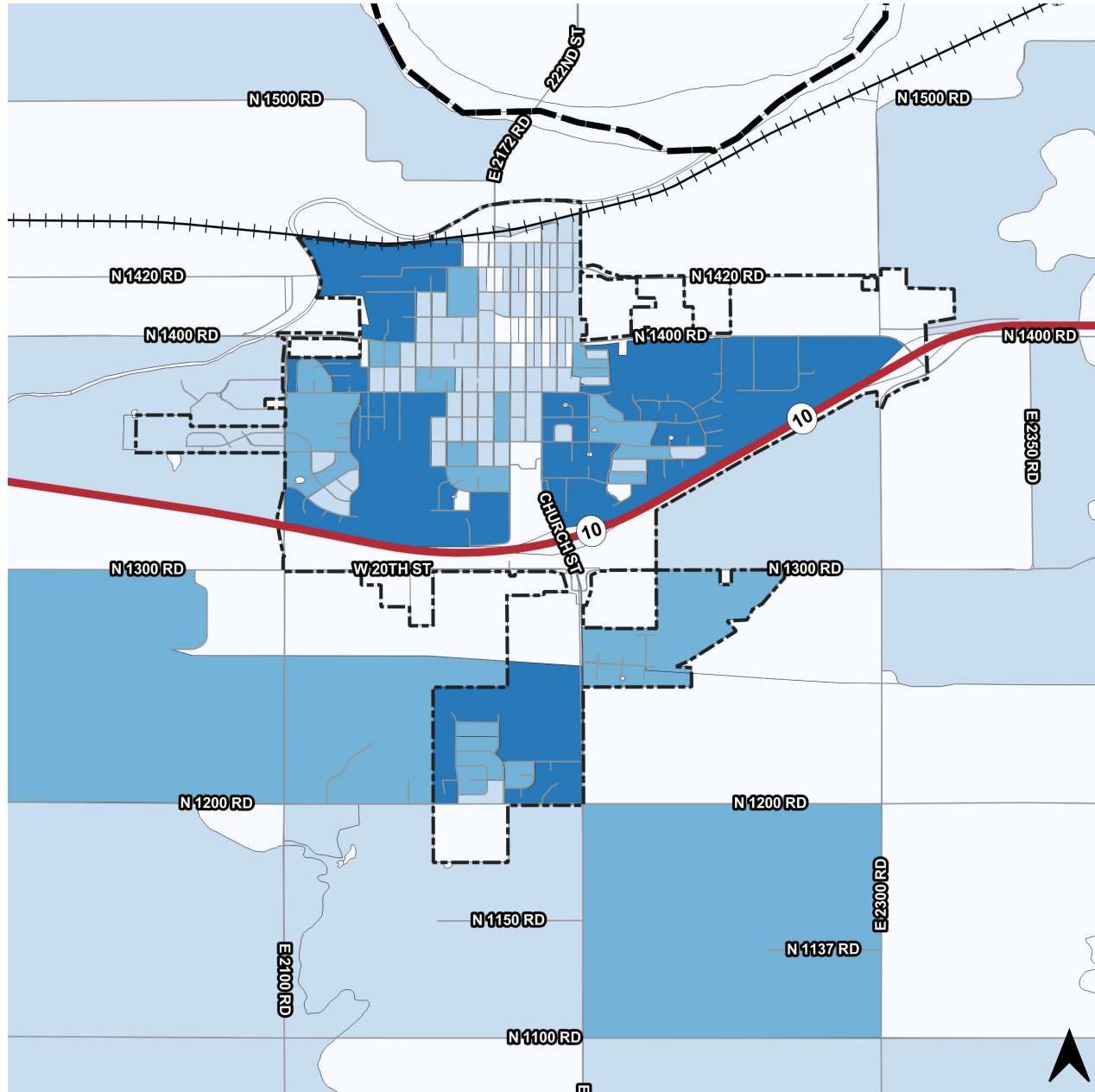
Source: U.S. Census Bureau

Population Projections

Since 1970, Eudora has averaged 1.23 Growth Index every ten years. Using this growth index and extrapolating outward for future years, it is estimated that Eudora may have a population of approximately 7,679 people by 2030 and 9,401 people by 2040.

Population Density

Population density is an important indicator of developed land. In 2017, Eudora's geographic limits were 2.9 square miles with 2,128.4 people per square mile. When compared to the population density of Douglas County and Baldwin City, Eudora is a considerably denser development pattern. In 2017, Baldwin City had a population density of 1,733.4 people per square mile and Douglas County had a population density of 265 people per square mile. While a significantly larger geographic area and total population, the population density of Lawrence is not much higher than Eudora's. In 2017, Lawrence had a population density of 2,781.6 people per square mile. As illustrated in **Figure 3-2**, areas with less population in Eudora are located in the downtown and immediately south of K-10, both due to the presence of commercial land uses.



Legend

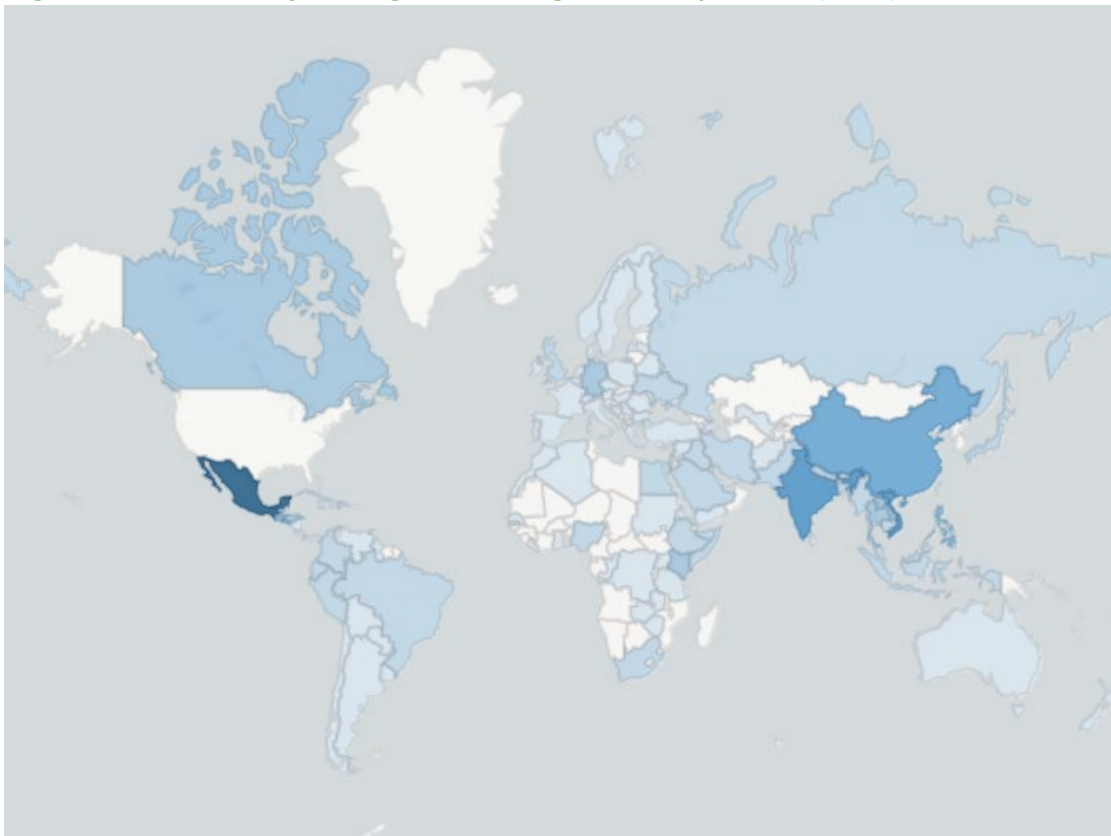
Highway	Population by Census Block
Road	0 - 10
Railroad	10 - 50
County	50 - 100
City Limits	100 - 500

Figure 3-3 | Population by Block

Race and Ethnicity

In 2017, the population of Eudora was 81% white. The remaining 9% minority population consists of Black, Native American, Asian, and Hispanic populations. Approximately 8% of Eudora households do not speak English at home. The three largest, non-English languages spoken at home include Indo-European, Asian/Islander, and Spanish. In total, 2% of the population are foreign-born. **Figure 3-3** illustrates the country of origin for the foreign-born population, illustrating global diversity within a small population group.

Figure 3-3: Country of Origin for Foreign Born Population (2017)

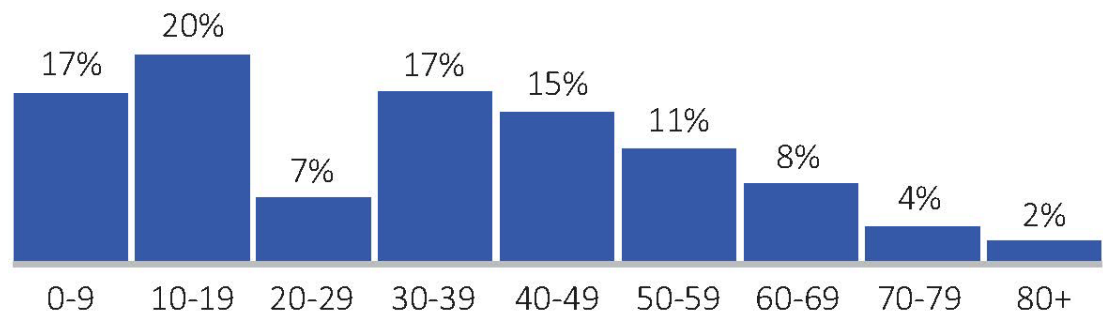


Source: U.S. Census Bureau, datausa.io

Age and Gender

Figure 3-4 illustrates the percent population by age range in Eudora. In 2017, Eudora had a median age of 33.7 years old which is higher than the median age of the Lawrence MSA at 29.2 years old and lower than the median age for Kansas at 36.3 years old. In total, 57% of Eudora's population is in the age cohorts that represent the predominant workforce population (ages 18 to 64); 35% are under the age of 18, and 8% are over the age 65. The largest age cohort are those age 10 to 19 which make up 20% of the total Eudora population. Overall, Eudora's population is 52% female, which is slightly higher than the percent female for the Lawrence MSA (50%) and the state of Kansas (50%).

Figure 3-4: Population by Age Range (2017)

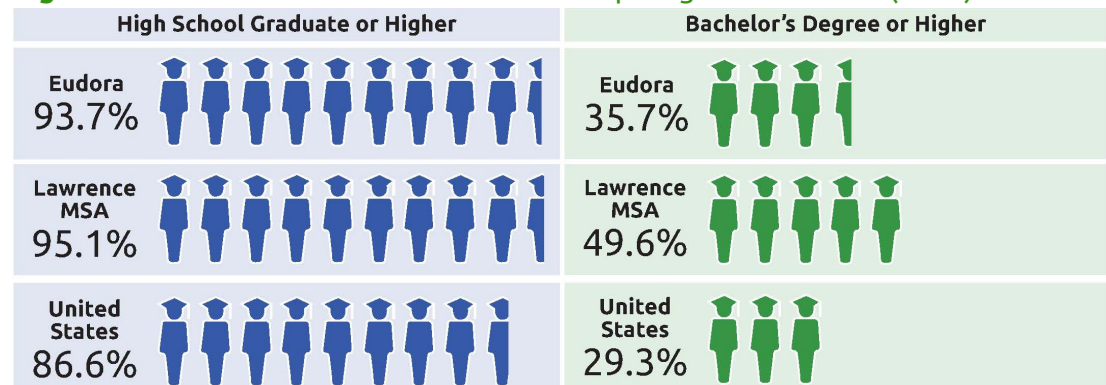


Source: U.S. Census Bureau

Education

Educational attainment is an important indicator in identifying the local workforce and employment needs of the population. In Eudora, 92.5% of the population have graduated High School. This is slightly lower than Lawrence MSA at 95.3% and slightly higher than the state of Kansas at 90.5%. Approximately, 34.6% of the Eudora population have earned a bachelor's degree, which is lower than Lawrence MSA at 50% and slightly higher than the state of Kansas at 32.4%. **Figure 3-5** summarizes the educational attainment for people age 25 or over.

Figure 3-5: Educational Attainment of People aged 25 or more (2017)

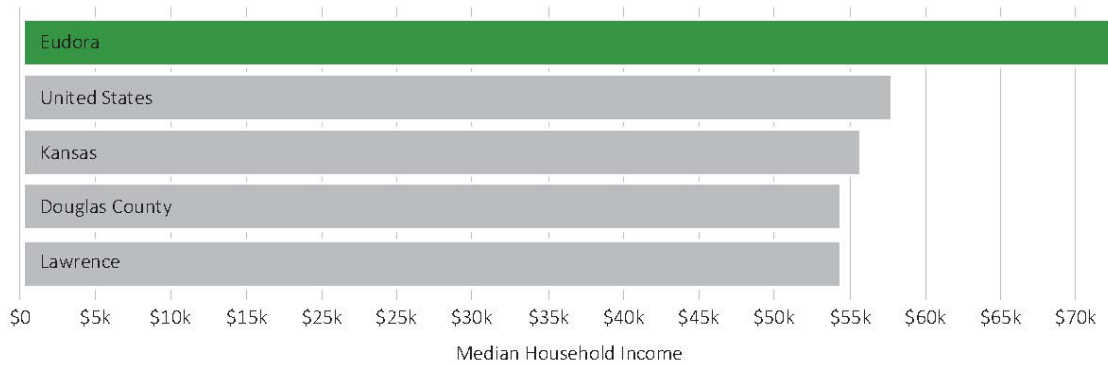


Source: U.S. Census Bureau

Income

Household income often has a strong correlation to educational levels; however, this is not necessarily the case for Eudora. As illustrated in **Figure 3-6**, the median household income in Eudora is \$72,477 which is higher than both the Lawrence MSA (\$54,370) and the state of Kansas (\$55,477). The median household income in Eudora significantly increased between 2016 and 2017. In 2016, the median household income was \$56,766, reflecting a 27.7% annual growth rate between 2016 and 2017. Approximately 45% of all households in Eudora earn between \$50,000 and \$100,000 per year, followed by 30% of households that earn under \$50,000 per year. While incomes are relatively high in Eudora, males in Eudora have an average income that is 1.4 times higher than the average income of females (\$43,397).

Figure 3-6: Median Household Income (2017)



Source: U.S. Census Bureau

Eudora



\$72,477

Median Household Income

Lawrence MSA



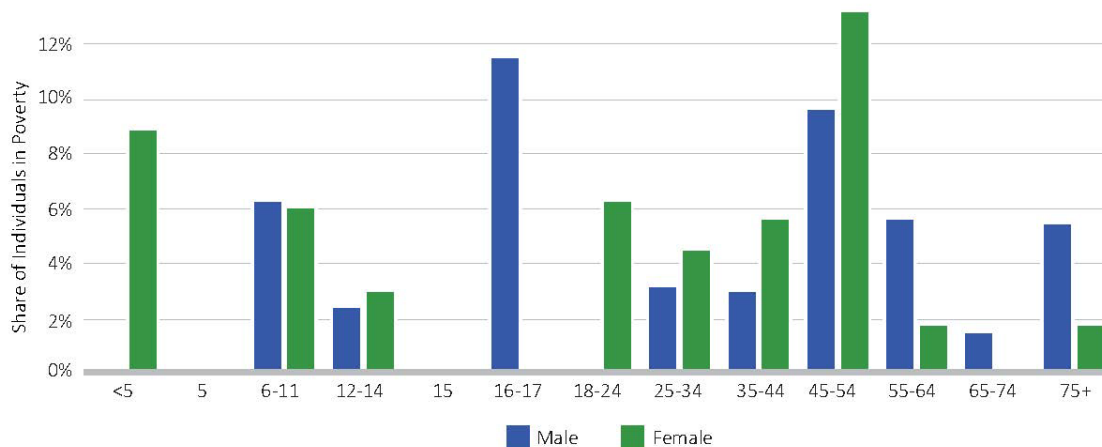
\$54,370

Median Household Income

Poverty

While Eudora may have a relatively high median income in comparison to the Lawrence MSA and the state of Kansas, it is important to note that not all residents are able to reach this level of economic success. In 2017, 11.7% of persons in Eudora were living below the poverty line. The U.S. Census determines if a person is living in poverty by comparing that person's income to a set minimum amount of income needed to cover basic needs. **Figure 3-7** illustrates the age and gender details of the share of individuals living in poverty. The largest demographic living in poverty are Females age 45 to 54, and Males age 16-17. Poverty also occurs with the youngest and oldest members of the community. In 2017, 13% of children (under age 18) and 14% of seniors (over age 65) were living below the poverty line.

Figure 3-7: Poverty by Age and Gender (2017)



Source: U.S. Census Bureau

3.3 Housing Characteristics

Household Type and Size

In 2017, Eudora was home to 2,059 households, which is 4.6% of all households in the Lawrence MSA. **Figure 3-8** illustrates that 74% of all households in Eudora are occupied by married couples, followed by female householders. The average household size in Eudora is 3 persons per household which is higher than the Lawrence MSA (2.4 persons per household) and the state of Kansas (2.5 persons per household).

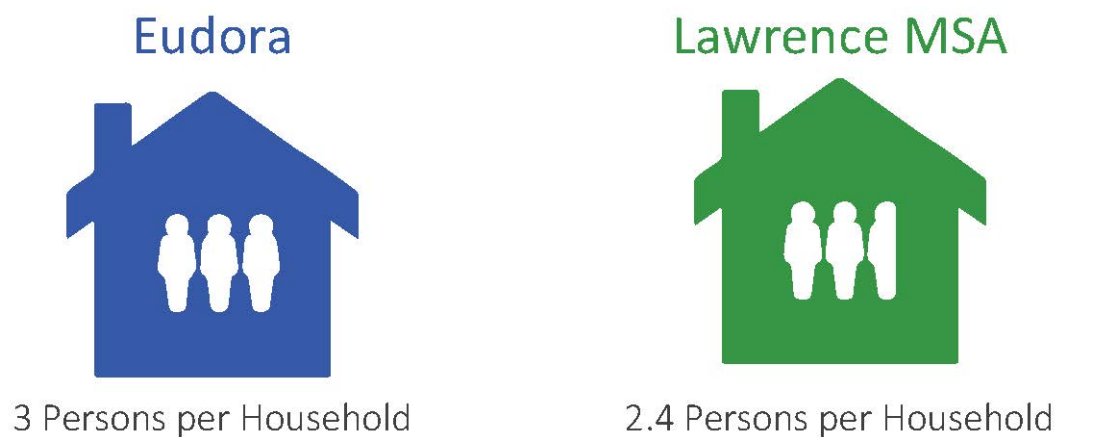
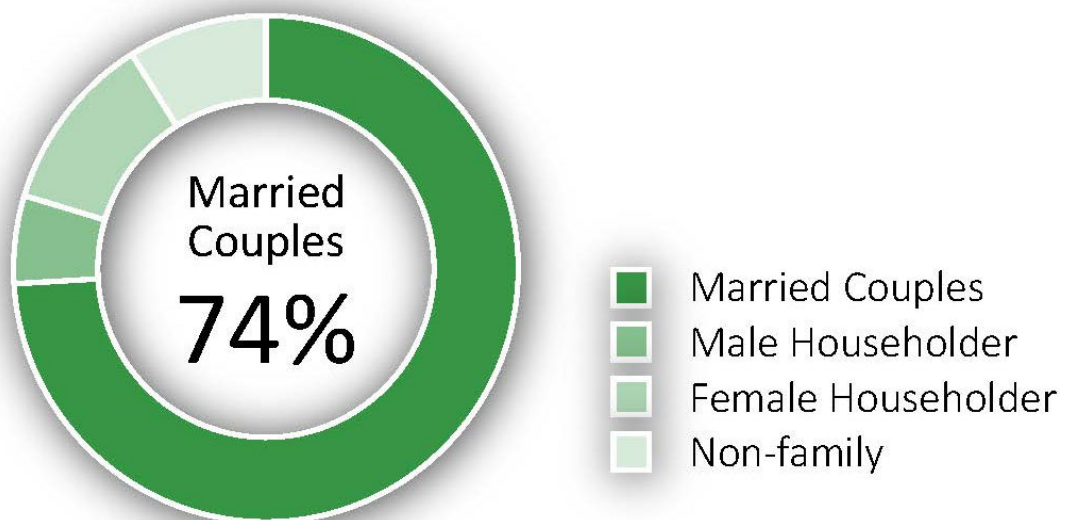


Figure 3-8: Household Type (2017)



Source: U.S. Census Bureau

Housing Occupancy and Tenure

Housing occupancy is based on all housing units within the city. Overall, Eudora has maintained a high occupancy rate. **Figure 3-9** illustrates that only 8% of the housing stock is vacant which can be an issue for people looking to move to Eudora. Housing tenure is based only on occupied housing units in the city. **Figure 3-9** also illustrates that of the occupied housing units, over 65% are owner occupied.

Figure 3-9: Occupancy Status and Housing Tenure (2017)

Occupied v. Vacant

Ownership of Occupied Units



Source: U.S. Census Bureau



1890 Home and 2019 Home. Source: Zillow

As illustrated in **Figure 3-10**, over 82% of all housing units are single-unit structures, followed by multi-unit structures. The high percentage of single-unit structures is reflected in Eudora having a relatively high median property value (\$155,300) compared to the state of Kansas (\$139,200). While the Lawrence MSA has a higher median property value (\$188,100), Eudora's property values are growing at a much faster rate. Between 2016 and 2017, Eudora's median property value grew by 16.2% compared to Lawrence MSA's growth of 3.41%.

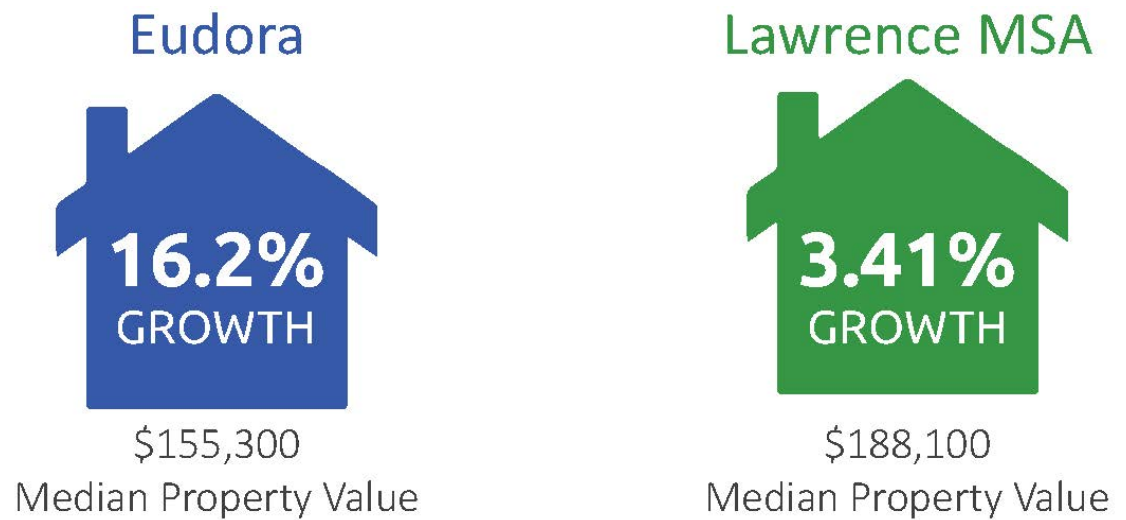
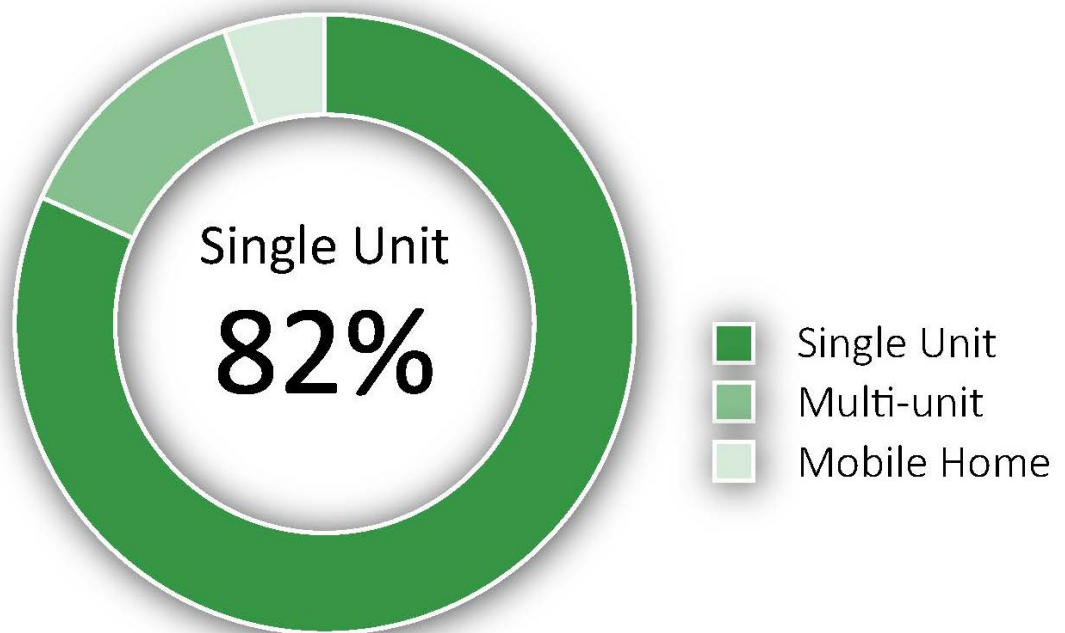


Figure 3-10: Type of Housing Structure (2017)



Source: U.S. Census Bureau

Eudora has maintained a relatively high median home value because the housing stock is relatively modern when compared to the Lawrence MSA and the state of Kansas. Housing age refers to the timeframe for when housing stock was built. **Table 3-2** lists the housing age data for Eudora, the Lawrence MSA, and the state of Kansas. The median year of construction in Eudora was 1993, which is considerably newer construction than the median year for Lawrence MSA (1986) and the state of Kansas (1973). Of note, 62% of all housing units in Eudora were built between 1980 and 2009. Eudora has been growing at a rapid pace over the last few years. In 2017 the City permitted 21 new housing projects, in 2018 the City permitted 32 housing projects, and thus far in 2019 (January to August), 10 housing projects have been permitted.

Table 3-2: Year Structure Built (2017)

Year Built	Kansas	Lawrence MSA	Eudora
2014 to 2017	8,807	333	18
2010 to 2013	24,900	1,543	63
2000 to 2009	147,136	9,353	778
1990 to 1999	162,288	10,352	359
1980 to 1989	146,335	6,751	255
1970 to 1979	192,227	7,582	180
1960 to 1969	131,624	4,286	174
1950 to 1959	162,661	3,097	157
1940 to 1949	72,903	972	124
1939 or earlier	210,766	4,837	133
Total Housing Units	1,259,647	49,106	2,241
Median Year	1973	1986	1993

Source: U.S. Census Bureau

3.4 Employment Characteristics

Employment characteristics of the local labor force are a good barometer for the health of the local economy. An increase in the labor force is typically an indicator of economic growth. In 2017, Eudora's economy employed 3,040 people, which is a 5.23% rate of growth from the prior year (2,890 in 2016).

Labor Force

The labor force refers to the number of people who are either employed or are actively looking for work. **Table 3-3** summarizes the labor force characteristics for Eudora, the Lawrence MSA, and the state of Kansas. In 2017, 4,577 of Eudora's population (66.3%) were counted in Eudora's labor force. The labor force participation rate measures the active labor force and is the sum of all employed workers divided by the working age population. In 2017, Eudora had a labor force participation rate of 73.2%, which is considerably higher than the state of Kansas (66.7%) and the Lawrence MSA (69.3%). While Eudora has a high labor force participation rate, the city is suffering from relatively higher unemployment. In 2017, 8.8% of Eudora's labor force were unemployed, which is considerably higher than the state of Kansas (4.8%) and the Lawrence MSA (4.7%).

Table 3-3: Labor Force – Employment Status (2017)

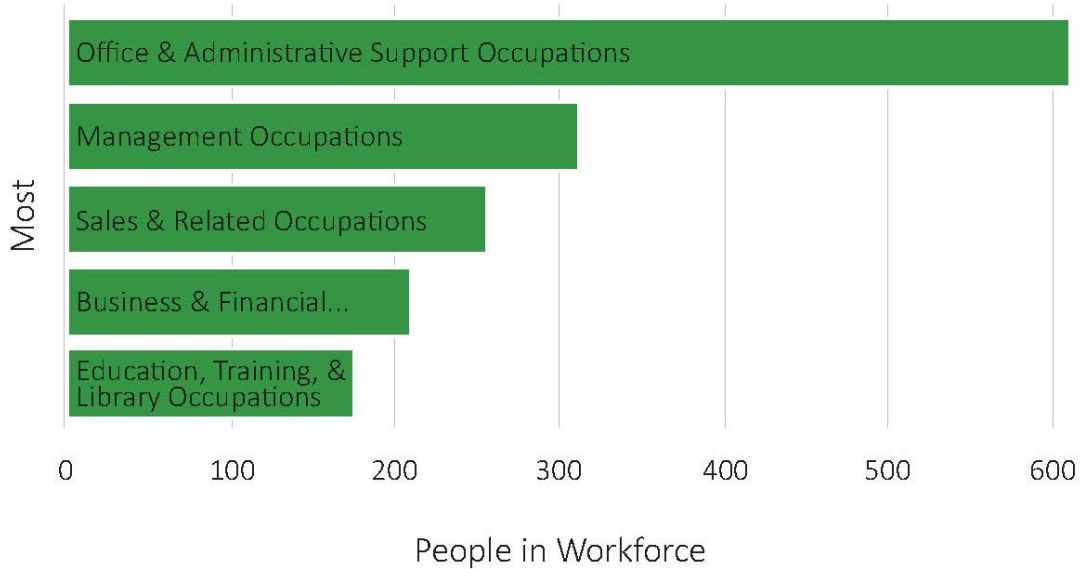
	Kansas	Lawrence MSA	Eudora
Total Population 16 years and over	2,264,633	98,041	4,577
Labor Force Participation Rate	66.70%	69.30%	73.20%
Employment/Population Ratio	62.70%	65.90%	66.30%
Unemployment Rate	4.80%	4.70%	8.80%

Source: U.S. Census Bureau

Employment by Occupations

Occupation is defined by the U.S. Census as the kind of work a person does to earn a living. As illustrated in **Figure 3-11**, the most common occupation groups for Eudora residents are office and administrative support occupations, management occupations, and sales and related occupations. Compared to other similar sized cities, Eudora has a high number of residents working in community and social services occupations, office and administrative support occupations, and business and financial operations occupations.

Figure 3-11: Resident Employment, Most Common Occupations (2017)

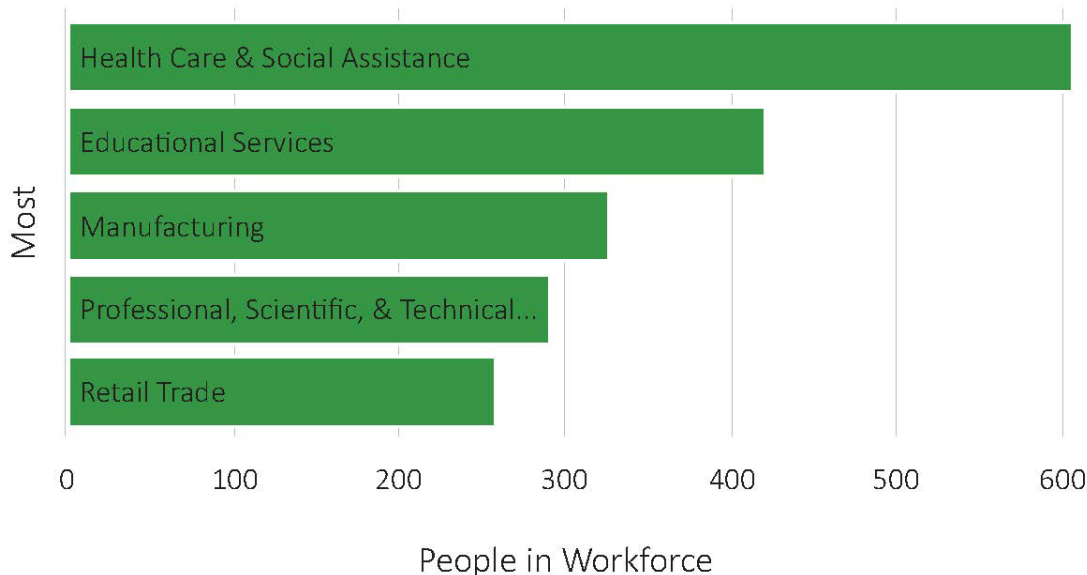


Source: U.S. Census Bureau

Employment by Industries

Industry is defined by the U.S. Census as the type of activity at a person's place of work. As illustrated in **Figure 3-12**, the most common industries for Eudora residents are in health care and social assistance, education services, and manufacturing. Compared to other similar sized cities, Eudora has a high number of residents employed in information, educational services, and health care and social assistance.

Figure 3-12: Resident Employment, Most Common Industries (2017)



Source: U.S. Census Bureau

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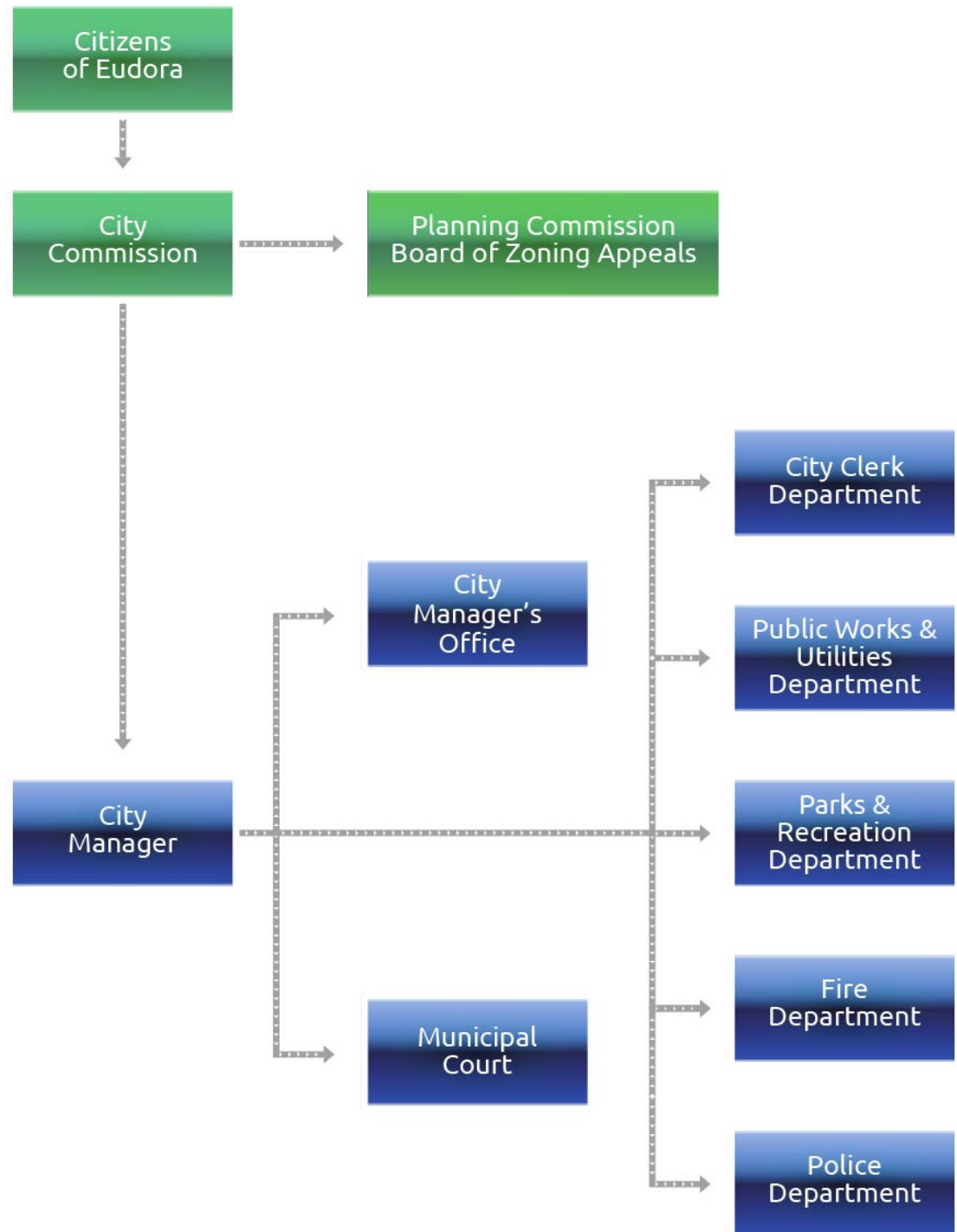
4.1 Government Structure

Since its inception, the City of Eudora has grown from a handful of determined settlers to a population of over 6,272 residents in the year 2017. The City of Eudora has a Commission-Manager form of government. The City Commission is the governing body of the city, elected by the public, and the City Manager is hired by the City Commission to carry out the policies it establishes. **Figure 4-1** illustrates the organizational structure of the City of Eudora.

The responsibilities of the City Commission include providing legislative direction to the City Manager, setting policy, approving the City's annual budget, determining the tax rate, adopting city ordinances, entering into major contracts for the City, making major land use decisions, and setting ballot questions. The Eudora City Commission consists of five at-large members, including a mayor who is selected each year by the City Commission.

The Eudora Planning Commission consists of seven commissioners which includes a planning commission chair. The Planning Commission hears requests for zoning changes, subdivision plats and development plans, recommending them to the City Commission for review and approval, making certain that plans comply with city ordinances and the Comprehensive Plan. The Board of Zoning Appeals administers the application of the zoning ordinances and hears/determines appeals from the refusal of building permits and permits exceptions in accordance with the purpose, conditions, and procedures specified by the governing body in the zoning ordinance.

Figure 4-1: Municipal Organization



4.2 Public Safety

This section includes descriptions of the various law enforcement and emergency response service providers in Eudora and the surrounding planning area.

Law Enforcement

City of Eudora Police Department

Within the city limits law enforcement is provided by the City of Eudora Police Department. The City of Eudora Police Department consists of a Chief, Sergeants, Detectives, Corporals, Schools Resource Officers, Patrol Officers, and Crossing Guards. Provided on the City of Eudora website is information regarding police policies and procedures, organization and command structure, general policies and rules, operations of police vehicles, weapons and use of force, arrest and limits of authority, patrol operations, investigations operations, and other policies and procedures. Located on Main Street in downtown Eudora, the Public Safety Building is a joint facility of the Eudora City Fire Department and the Eudora Police Department.



City of Eudora Public Safety Building

Douglas County Sheriff's Office

Outside the city limits law enforcement is provided by the Douglas County Sheriff's Office. Additionally, the Sheriff's office provides support service to the Eudora Police Department by request. The Sheriff's office is divided into two administrative areas: operations and corrections. The Operations Division is comprised of six areas, including: patrol, civil process/warrants, investigations, courtroom/building security, community relations, and administration.

Emergency Response

This section contains information about existing emergency response services provided by the Eudora City Fire and EMS Department, Eudora Township Fire Protection, Ambulance Services, and 911 Services.

Eudora City Fire and EMS Department

The Eudora City Fire and EMS Department provides fire suppression, emergency medical services, community risk reduction and public education for all areas within the city limits. The Eudora Fire and EMS Department staffs 28 volunteer firefighters, EMT's and paramedics, serving over 6,000 residents and responding to approximately 650 calls per year. In 2018, the Eudora Fire and EMS Department created a community developed five-year strategic plan which identified a Department vision, goals, objectives, and a series of tasks to be undertaken.

Eudora Township Fire Protection

The Eudora Township Fire Department serves the unincorporated areas surrounding the city, approximately 48.5 square miles. The department provides services for all hazards within jurisdictional boundaries and where requests for mutual aid come from. Technical rescue services and advanced life support services are supplemented through a cooperation agreement between the Township, Douglas County, and Lawrence Douglas County Fire Medical. The department operates out of one station located on 20th street, west of County Road 1061. Staffing of the department comes from the 24 volunteer firefighters, EMTs, and paramedics including a fire chief, assistant chief, captain, and two lieutenants.

Ambulance Services

In addition to First Responders from the Eudora City Fire and EMS Department, an Advanced Life Support (ALS) ambulance is housed within the Eudora Fire Station. This ambulance is staffed and operated by Lawrence Douglas County Fire and Medical (LDCFM) and serves the entire City of Eudora and surrounding planning area. Through cooperative agreements between LDCFM and first responder agencies, LDCFM provides ALS ambulance services to all of Douglas County with five ambulances located in Lawrence, one in Baldwin City, and one in Eudora.

911 Dispatch Services

Area 911 dispatches are run by Douglas County Emergency Communication Department. The Douglas County Emergency Communication Department has a primary mission to serve the citizens of Douglas County, including the cities of Baldwin, Eudora and Lawrence, by acting as a communications link between the citizen who needs an emergency service response and those law enforcement, fire, and medical response agencies who provide such services.

4.3 Utilities

This section describes the infrastructure utility services within the Eudora Planning Area, consisting of water, sewer, and electrical services, storm sewer infrastructure, and solid waste management.

Water

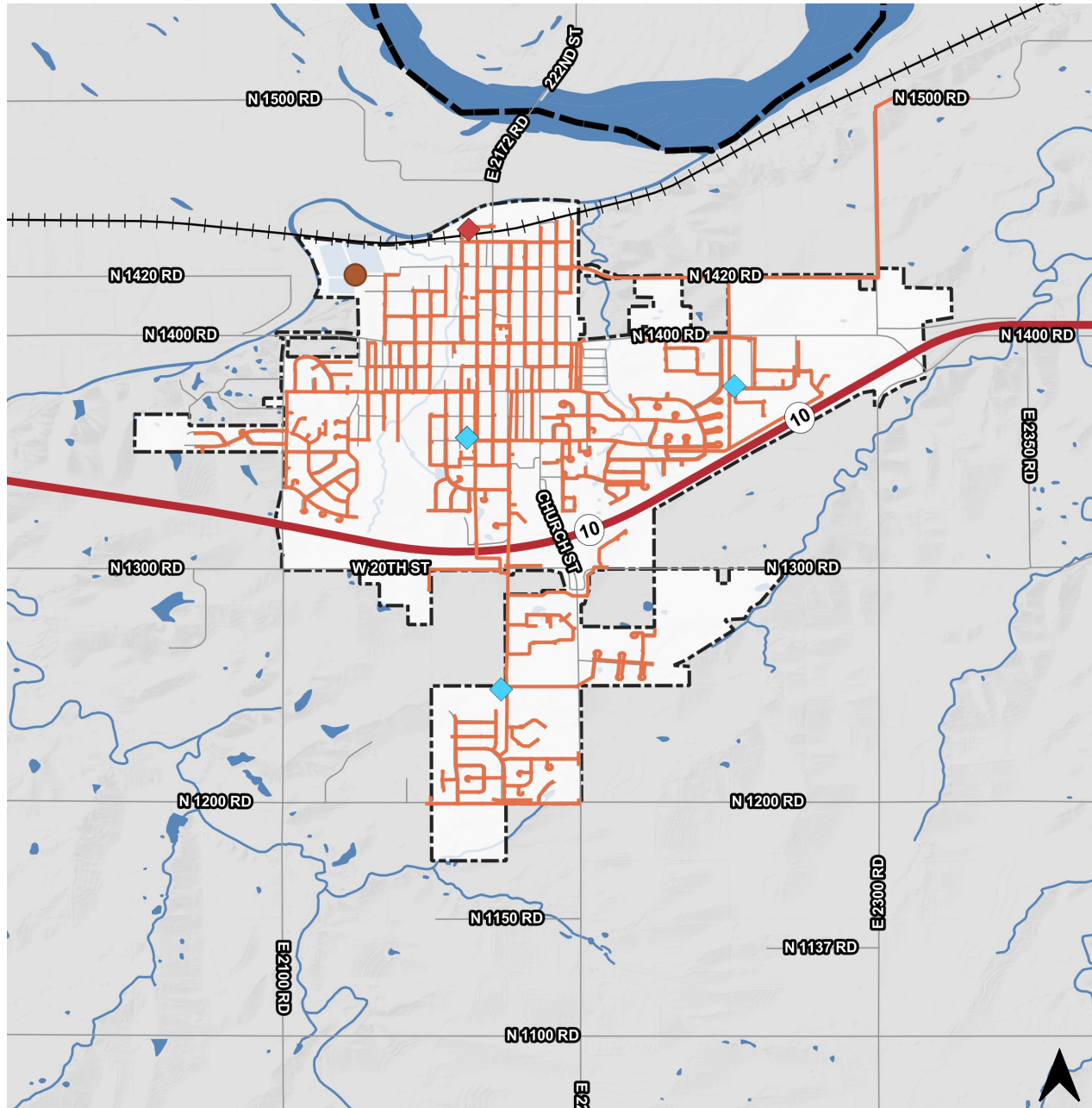
The City of Eudora owns and maintains the City's water distribution system. **Figure 4-2** illustrates the existing water system, including: water towers, storage tanks, water transmission lines, and water distribution lines. Subsurface water is drawn from six active wells located northwest of the city limits between the Wakarusa River and Kansas River. There are additional wells that are either inoperable or are reserved strictly for emergency use. The well water is treated with chlorine prior to distribution through the City's urban water system, including above ground storage, water towers, transmission and distribution lines, fire hydrants for fire protection, and other necessary improvements.

In 2018 the Kansas Department of Health and Environment published a Consumer Confidence Report that includes a listing of all contaminants found in the drinking water in the 2017 calendar year. Of note, the Consumer Confidence Report indicates Eudora's drinking water is safe.

In 2019 the City published a Drinking Water System Preliminary Engineering Report. This Report evaluates the capability of the City's water system (supply, treatment and distribution components) to meet the demands projected for the next twenty years. The Report indicates that in year 2040 the peak day diverted water requirement is 1.2 million gallons per day (mgd). The water treatment plant is currently operated 14 hours per day. To keep pace with that operational demand, a treatment plant with capacity of 2.14 mgd is needed.

Eudora is surrounded on the east, south and west sides by Douglas County RWD 4 and Johnson County RWD 7, leaving a limited area that could be served by Eudora. If development were to occur in this area, the ultimate service demand is estimated to be 1.4 mgd (peak day) which requires a 2.5 mgd water treatment plant. The City desires to serve a larger area on the south side of K-10 which would require new agreements with the adjacent water districts. This expanded area would place additional service demand on the system.

The City possesses enough water rights to meet the 2.5 mgd demand expected from full buildout of the area currently servable by the City. The Report includes recommended improvements to raise equipment above the projected 100-year flood elevation, relocate Well No. 5, install two new raw waterlines, and replace the water treatment plant. Many parts of the distribution system are reaching or exceeding the end of their life expectancy and replacements and upgrades will be required in the near future.



Legend

- | | | |
|--|--|---|
|  Storage Basin |  Water Main |  Hydrology |
|  Water Tower |  Highway |  County |
|  Water Supply or Treatment Facility |  Road |  City Limits |
| |  Railroad | |

Sewer

The sanitary sewer system is operated by the City of Eudora. **Figure 4-3** illustrates the sewer system including sewer lagoons, sludge pump, sewer lift stations, wet well/pump station, collector sewer, sewer lines, and force mains. In the mid-1990s the City made considerable investment in the sewer system including upgrading the lagoon with increased aeration equipment, upgrading sewer mains and distribution lines, improving the sewer treatment facility, and extending service south of K-10. A Wastewater Treatment and Collection System Facility Plan was completed in 2019. The recommendations of this plan include the following: total phorourus addition to the wastewater treatment plant (WWTP), adding a grit chamber to the WWTP, improvements to the Peach Street pump station, Intech pump station, and Meadowlark pump station, as well as increases to the sewer rate structure.

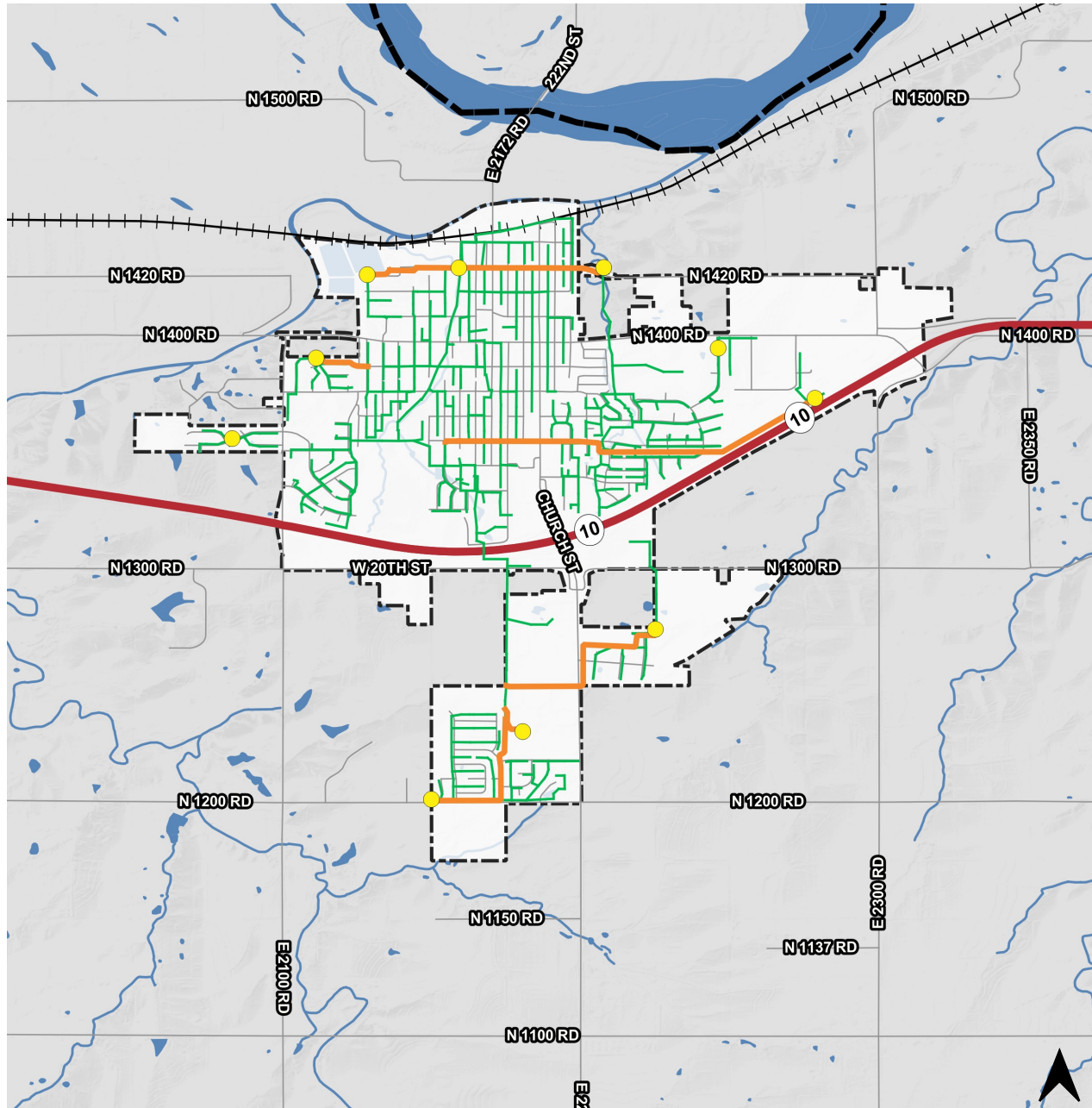
Electrical

The City of Eudora operates and maintains the electric distribution system within the Eudora city limits. The City currently purchases capacity and energy from the Kansas City Power & Light Company (soon to be renamed Evergy) and the Western Area Power Administration. Service outside the city limits is provided by Evergy, Inc. As areas continue to be voluntarily annexed into Eudora, the City will continue to expand the electrical service area.

The City electric utility currently serves approximately 2,500 customers and maintains and repairs over 100 miles of electrical lines, 1,000 poles, 600 transformers, and nearly 800 streetlights.

Figure 4-4 illustrates the existing electrical service including the Eudora electrical service area, the Evergy, Inc. electrical service area, electrical substations, and system circuits. In addition to maintaining the system infrastructure, the electric department oversees maintenance of lights at four baseball fields, for all City buildings, and for related infrastructure.

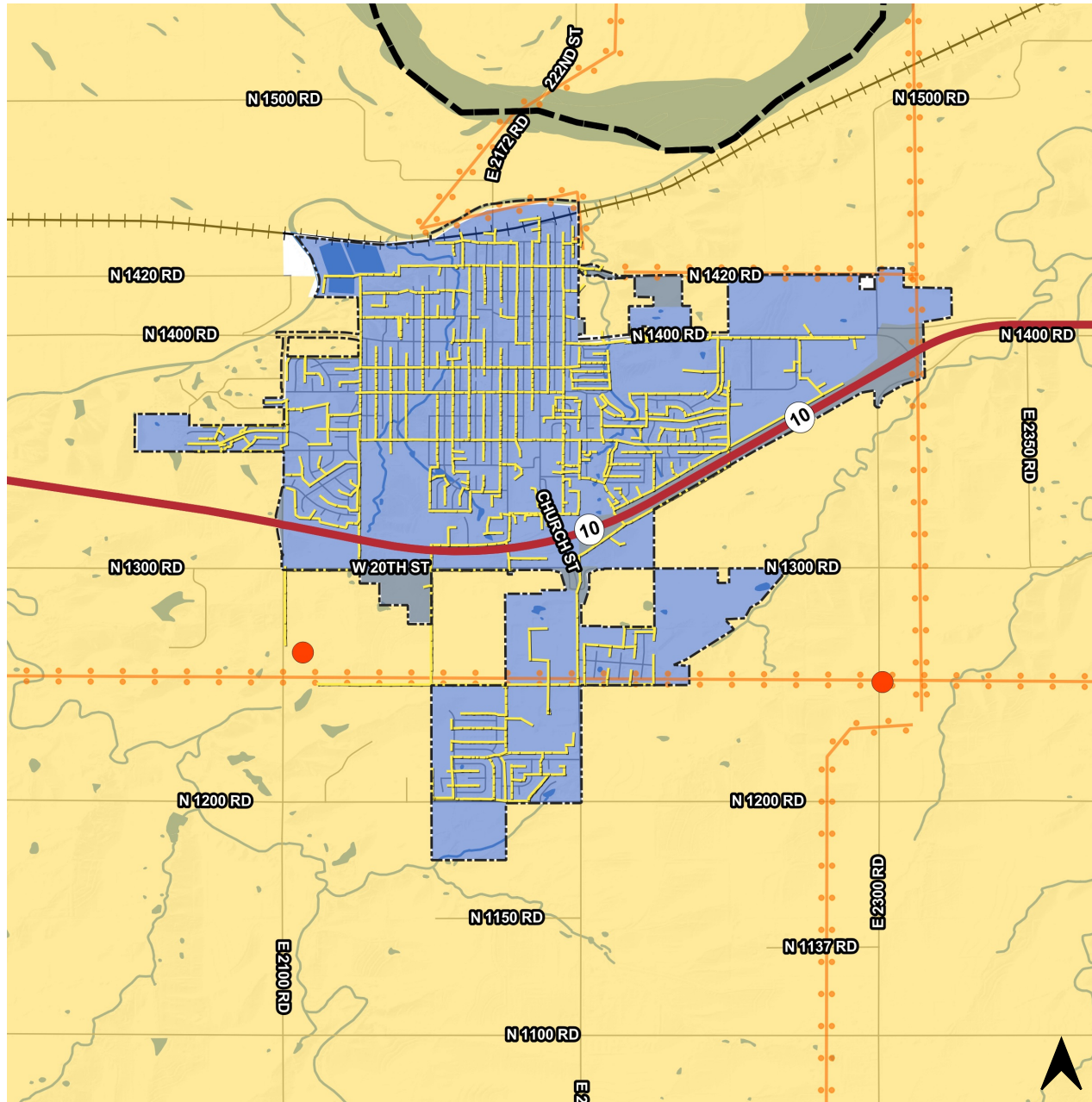
In 2017 the City published a Report on the Electric Cost of Service and Rate Design. The study revealed the need to adjust electric fees to cover the costs associated with providing electric service. In 2019 the City published the [Electric] Distribution System Study. The study provides recommendations for maintenance and suggested levels of continued investment in the electric system. The study concluded that the electric system is in good working condition and that equipment is not near its end of life; however, continued maintenance and monitoring is recommended. The capital expenditures needed to keep the electric system in good condition include replacing poles, servicing transformers and conductors, and replacing underground distribution cable.



Legend

- | | | |
|--|--|---|
| — Sewer Main | — Highway | — Hydrology |
| — Pressurized Main | — Road | County |
| ● Lift Station | + + Railroad | City Limits |

0 0.25 0.5 0.75 1 mi



Legend

- | | | |
|---|---|---|
| City Electric Service Territory | Electric Substation | Hydrology |
| Westar Service Territory | Highway | County |
| Electric Line | Road | City Limits |
| Electric Transmission Line | ++ Railroad | |



Figure 4-4 | Electrical Service

Storm Sewer

Stormwater drainage is a critical infrastructure component to ensure surface drainage doesn't result in flooding. The City has a stormwater management plan and policies and has incorporated several "best management practices" following direction from the Clean Water Act and the National Pollutant Discharge Elimination System (NPDES) standards. The previous 2003 Comprehensive Plan recommended: street improvements to include stormwater management improvements (e.g. grass swales), need for improved stormwater facilities, need for a city-wide drainage basin/stormwater management program, and increased responsibility of each new development to plan for stormwater management. As of the date of adoption of this Comprehensive Plan, the City is conducting a stormwater infrastructure report to determine the status of and needed improvements to the City's stormwater system.

Private Utility and Service Providers

Solid Waste Management

The City of Eudora contracts with Honey Creek Disposal for solid waste collection including trash, recycling, and yard waste. This solid waste contractor serves the city limits as well as some surrounding areas. Materials collected are disposed of at the Hamm Sanitary Landfill (commonly referred to as the Douglas/Jefferson County Sanitary Landfill) located northeast of Lawrence, KS.

Natural Gas

Natural gas service is provided by Atmos Energy. Atmos Energy purchases natural gas from numerous natural gas wellhead producers and markets to meet the requirements of their service areas.

Telecom

Telecom services are provided by several providers. In fact, Eudora ranks 19th in the state of Kansas for most connected cities (<https://broadbandnow.com/Kansas/Eudora>). In total, there are 15 internet service providers, 10 of which provide service to residential customers.

4.4 Education

K-12 Education

Opportunity for a quality education is a key characteristic of a young and growing community. The Eudora School District plays an important role in the community quality of life. Apart from a small area west of the city that is in the Lawrence School District, the majority of the planning area is served by the Eudora Unified School District, USD 491. This area to the west is very unlikely to be developed as the majority is within the floodplain.

The Eudora Unified School District operates one early childhood center, one elementary school, one middle school, one high school, and one technical education center. As illustrated in **Figure 4-5** all school facilities are located within the city. In total, 1,736 students, consisting of Pre-K to 12th grade, are students of the Eudora Unified School District.

Public Library

Eudora Public Library is in downtown Eudora off Main Street and serves the City of Eudora and the Eudora Township. The public library location is illustrated on **Figure 4-5**. The library includes three full-time staff and five board members. In addition to providing access to books for Eudora residents, the library hosts several events each month.



Figure 4-5 | Educational Facilities

4.5 Parks and Recreation

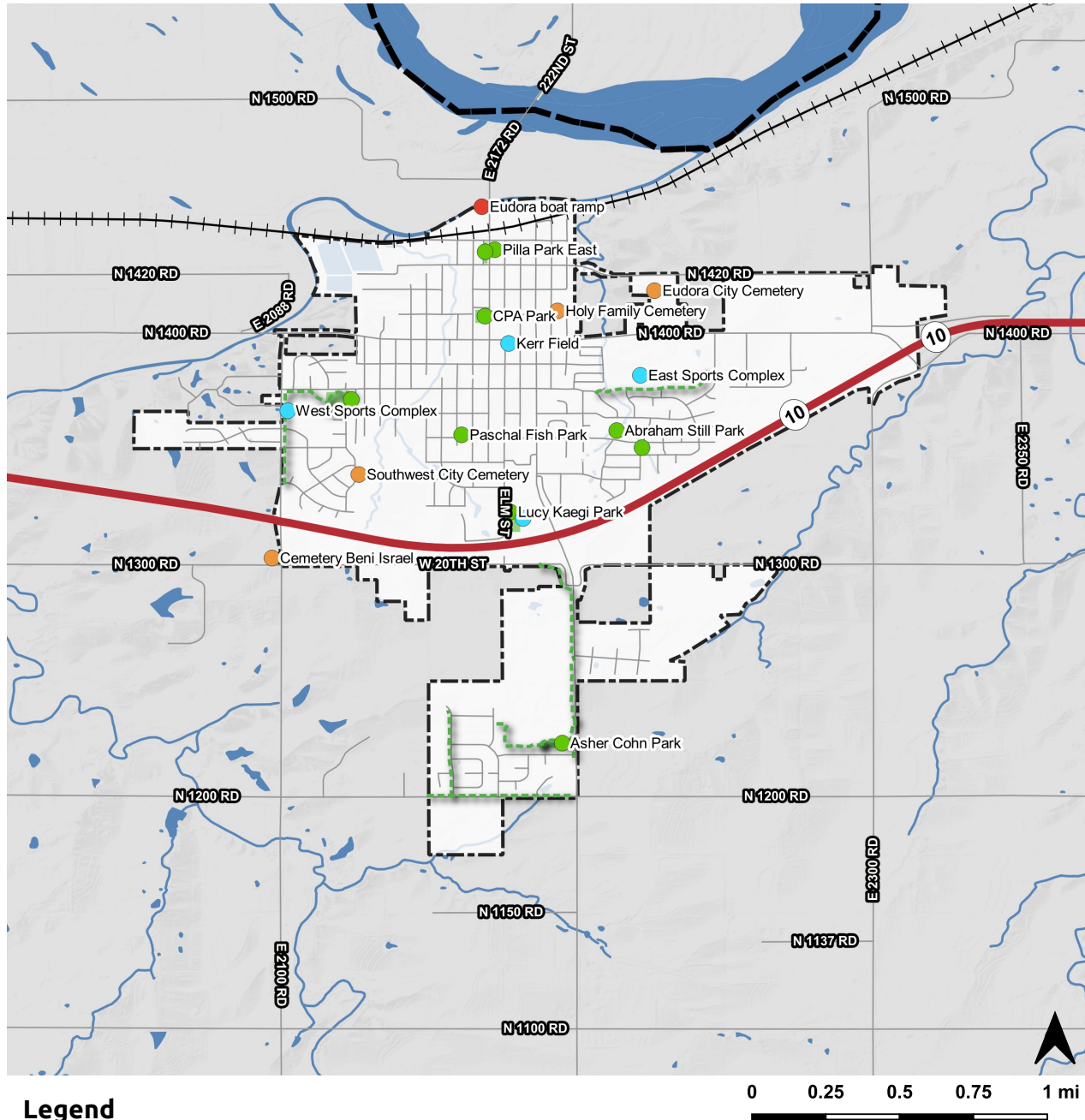
Parks and recreational facilities provide a place for respite and exercise. Parks and recreation have a long history in Eudora, with the first community picnic being held in 1901.

The City of Eudora Parks and Recreation Department maintains 88 acres of public space and community facilities. **Figure 4-6** illustrates the parks and recreation facilities and the existing trail system. In addition to the City's park facilities, much of the community's parks and recreation needs are met in conjunction with the Eudora School District (USD 491) which includes play equipment and ball fields at the schools that are used by the community.

In 2012, the City of Eudora published the Parks and Recreation Master Plan. The Plan includes a plan for the city's trail system and individual park and recreation complex plans for 13 facilities, including:

- | | | |
|----------------------|----------------------------|------------------------|
| ▶ Bluejacket Park | ▶ Pilla Park | ▶ East Sports Complex |
| ▶ CPA Park | ▶ Asher Cohn Park | ▶ West Sports Complex |
| ▶ Abraham Still Park | ▶ Wakarusa River Boat Ramp | ▶ South Sports Complex |
| ▶ Paschal Fish Park | ▶ Community Center – | ▶ Skate Park |
| ▶ Lucy Kaegi Park | Aquatic Center Complex | |

Two facilities referenced in the Parks and Recreation Master Plan, the Skate Park and the South Sports Complex, have yet to be constructed. The South Sports Complex is scheduled for construction to begin in 2021.



Legend

- | | | |
|---|--|---|
| ● Boat Ramp / Dock | Park | Railroad |
| ● Cemetery | Trail | Hydrology |
| ● Park | Highway | County |
| ● Sports Complex | Road | City Limits |



The previous chapters of this Existing Conditions Report provide an overview of the state of Eudora in 2019. Provided herein is an overview of the trends and themes that provide pivotal insights into future planning for the city.

5.1 Chapter 1, Historical Context

The Eudora area was first settled by Native Americans (the Kansas, Kaw, and Shawnee Indian tribes). The first American Settlers include those traveling through on the Oregon Trail and Santa Fe Trail. Soon thereafter the city was established when a German immigrant community purchased 774.5 acres from the Shawnee Chief Paschal Fish, whose daughter's name was Eudora. Under Territorial laws, Eudora was incorporated as a city on February 8, 1859.

Eudora was right in the middle of several pivotal moments in American history including the American Civil War. Despite the racial tensions of the period, Eudora was home to a diverse population consisting of English, German, Irish, Jewish, and Quaker settlers, as well as African Americans who were freed by the Emancipation Proclamation. Fast forward another hundred years and the Eudora area was playing another pivotal role in American history. During World War II, the Sunflower Army Ammunition Plant was developed which would quickly grow to 10,000 acres consisting of nearly 3,000 buildings and employing 12,000 people.

These pivotal moments in American history are also foundational moments for the Eudora community and should continue to be celebrated as the community plans for its future.



Statue of Chief Paschal Fish and daughter Eudora

5.2 Chapter 2, Physical Context

Chapter 2 covers several important topics including the Planning Area and Urban Growth Area, previous planning efforts, the natural environment, and the built environment.

Planning Area and Urban Growth Area

The previous Comprehensive Plan had a study limit consisting of the Eudora Planning Area (extending approximately three miles outside the city limits). This Comprehensive Plan Update will primarily focus on the newly established Urban Growth Area (UGA). **Table 5-1** describes the tier system which is based on the current infrastructure / utility availability or future provision of infrastructure and utilities in an efficient and cost-effective manner. **Figure 5-1** illustrates the UGA and the planning tiers.

Table 5-1: Urban Growth Area Planning Tiers

Tier	Characteristics
Tier 1	<ul style="list-style-type: none"> • Tier 1 land is prioritized for development at any time. • Area within Eudora City Limits or islands of unincorporated area surrounded by the City • Readily serviceable with utilities (water, sewer, stormwater) with minor system enhancements • Serviceable by fire with current infrastructure • Develop to suburban and urban standards per adopted plans and policies
Tier 2	<ul style="list-style-type: none"> • Tier 2 land shall be annexed when the need to accommodate demand is established. • Within the UGA, adjacent to or near existing City Limits requiring annexation or annexation agreement and acceptance of future benefit district implementation (as needed) • Readily serviceable with utilities with minor system enhancements necessary for development • Readily serviceable by fire with current infrastructure and/or minor adjustments • Develop to suburban and urban standards per adopted plans and policies
Tier 3	<ul style="list-style-type: none"> • Tier 3 land that is not designated to be annexed within the 20-year planning horizon of this Comprehensive Plan. • Develop to rural standards (20-acre parcels or larger) while planning for future urban growth at a point beyond the time horizon of the comprehensive plan • Major utility system enhancements, expansions, extensions necessary for development (e.g. treatment plant, water tower, major distribution or collection line) • Requires investment in fire infrastructure and personnel

Built Environment

The Built Environment section of Chapter 2 includes an overview of the existing land use and zoning patterns, the historical annexation patterns and parcel acreage, an overview of the neighborhoods and districts in the area, and an overview of the transportation system.

The predominant land uses in the area are Natural Resources and Single-family Residential. Scattered throughout the city are a few areas of Institutional, Commercial, and Industrial uses. The largest concentration of non-residential land uses is adjacent to the two K-10 highway interchanges (Church Street and 10th Street). The Existing Zoning map is relatively consistent with the Existing Land Use map; however, there are some inconsistencies in areas surrounding the K-10 highway interchanges which may be a result of planning for the future development potential of the area.

The historical annexation patterns show that the City's geographical limits nearly doubled over the last 20 years as a large area of the city was annexed after 1997. The parcel acreage map provides telling information into the development/redevelopment potential for certain areas, as larger tracts of land (i.e. 40+ acres) are typically easier to develop than smaller tracts of land.

The transportation system primarily consists of a grid street network consisting of 34.5 miles of roadway and 10 bridges. That street pattern is sometimes disconnected by barriers such as rivers and streams, the railroad, and K-10. Eudora does not have any transit service and currently there are no plans for service in the future. Eudora has two miles of bicycle facilities which consists of off-street multi-use paths. The pedestrian network consists of the two miles of multi-use paths as well as 17.1 miles of sidewalks. Recent transportation planning conducted by the Lawrence-Douglas County MPO identified the pedestrian and bicycle network as key investment decisions for the City and MPO in the future.



Main Street

5.3 Chapter 3, Demographic / Economic Context

Chapter 3 provides an overview of the demographics and economic context of the community including the population characteristics and employment characteristics.

Population Characteristics

In 2017, Eudora had a population of 6,272. Between 2000 and 2010 Eudora grew by 42.47%; however, since 2010 Eudora has only grown by 2.22% reflecting a dramatic slowing in the population growth rate. Since 1970, Eudora has averaged 1.23 growth index every ten years. Using this growth index and extrapolating outward for future years, it is estimated that Eudora may have a population of 7,679 people by 2030 and 9,401 people by 2040.

In Eudora, 93.7% of the population have a High School diploma and 35.7% have a Bachelor's Degree. Eudora has a relatively high median household income (\$72,477) compared to the Lawrence MSA (\$54,370). The largest age groups in poverty are females under 5 years old, males ages 16-17, and males and females ages 45-54. The predominant household type consists of married couples, followed by female heads of household. Of the housing units in Eudora, 92% are occupied leaving only 8% of the housing stock for people looking to move to Eudora. Looking at the data pertaining to the year structures were built, Eudora has a relatively modern housing stock, as 1993 is the median year for structures built in Eudora.

Employment Characteristics

In total, 4,577 people qualify as being in Eudora's labor force (total population 16 years and over). The labor force participation rate is 73.2%; however, Eudora has comparatively high unemployment at 8.8%. Compared to other similar sized cities, Eudora has a high number of residents working in community and social services occupations, office and administrative support occupations, and business and financial operations occupations. Compared to other similar sized cities, Eudora has a high number of residents employed in information, educational services, and health care and social assistance.



Residents and Visitors at Eudora Fest

5.4 Chapter 4, Facility / Service Context

Chapter 4 provides an overview of the government structure, public safety, utilities, education, and parks and recreation services provided in Eudora.

Government Structure

The City of Eudora has a Commission-Manager form of government. The City Commission consists of five at-large members, including a Mayor who is selected each year by the Commission. The Planning Commission consists of seven commissioners, including a Planning Commission Chair. The municipal government consists of the City Manager, City Manager's Office, Municipal Court, Building & Codes, and five departments (City Clerk, Public Works and Utilities, Parks and Recreation, Fire, and Police).

Public Safety

Public safety consists of both law enforcement and emergency response. Within the city limits, law enforcement is provided by the Eudora Police Department. Outside the city limits, law enforcement is provided by the Douglas County Sheriff's Office. Emergency response services within the city limits consist of the Eudora City Fire and EMS Department, Ambulance Services and 911 Dispatch Services; additionally, Eudora Township Fire Protection provides service outside the city limits within the Eudora Township. Of note, both the City and Township fire departments consists of volunteer staff.

Utilities

There are four public utilities provided by the City of Eudora including Water, Sewer, Electrical and Storm Sewer. Private utility or service providers consist of solid waste management, natural gas, and telecom.

A 2019 Drinking Water System Preliminary Engineering Report included several investment recommendations for the City to meet the demands of new growth and development and to expand service delivery. The City desires to serve a larger area with water services on the south side of K-10 which would require new agreements with Douglas County RWD 4.

A 2019 Wastewater Treatment and Collection Facility Plan was completed, which includes recommended improvements to the wastewater treatment plant, three pump stations, and options for increasing the sewer rate structure.

Electrical service is provided by the City within the city limits. Outside the city limits, the electrical service is provided by Evergy, Inc. As the City continues to annex new areas, the electrical service area of the city will expand. In 2017, the City published a Report on the Electric Cost of Service and Rate Design that revealed a need to adjust fees to cover the costs associated with providing electric service. In 2019, the City published the [Electric] Distribution System Study that recommended the following capital expenditures: replacing poles, servicing transformers and conductors, and replacing underground distribution cable.

Education

The Eudora Unified School District (USD 491) operates one early childhood center, one elementary school, one middle school, and one high school. In total, 1,736 students, consisting of Pre-K to 12th Grade attend these school facilities which are all located within the Eudora city limits. In addition to the public schools, the Eudora Public Library is located in downtown Eudora off Main Street.

Parks and Recreation

The City of Eudora Parks and Recreation Department maintains 88 acres of public space and community facilities. In addition to City facilities, some of the community's parks and recreation needs are met in conjunction with the Eudora School District (USD 491) which includes play equipment and ball fields at the schools that are used by the community. The 2012 Parks and Recreation Master Plan includes plans for 13 parks facilities; 11 of which are already constructed but include recommendations for improvements. The two remaining facilities (the Skate Park and the South Sports Complex) have yet to be constructed. The South Sports Complex is scheduled to begin construction in 2021.



Asher Cohn Park



Aquatic Center

5.5 Visual Analysis

The process of giving form, shape, and character to a city, neighborhood, or group of buildings is known as urban design. Urban design helps establish a framework to make connections between people and places, nature and the built environment. In order to better comprehend the planning implications for the Eudora planning area, a visual analysis was conducted which provides a summary of the factors and features discussed in this Existing Conditions Report.

The physical layout of a city generates a perceived environment that varies from person to person. How an individual navigates the city determines their perception of the physical layout and function and the perceived environment. **Figure 5-2** provides a visual summary of the features and characteristics that impact the Eudora Planning Area and should be considered in this planning process. The visual analysis features are divided into five types of forms, including: Districts, Paths, Edges, Nodes and Landmarks. Each of these features are described herein.

Districts are areas that are perceived to have common characteristics. Downtown Eudora is a unique district consisting of historical architecture and a unique street character. Located north and south of K-10 surrounding Church Street is a district where a combination of institutional and commercial uses form a gateway into the city. Located south of K-10, west of Church Street is an area with two educational institutions and athletic fields that forms a campus-like district. Located west of K-10, south of 10th Street is the beginning formation of an employment district.

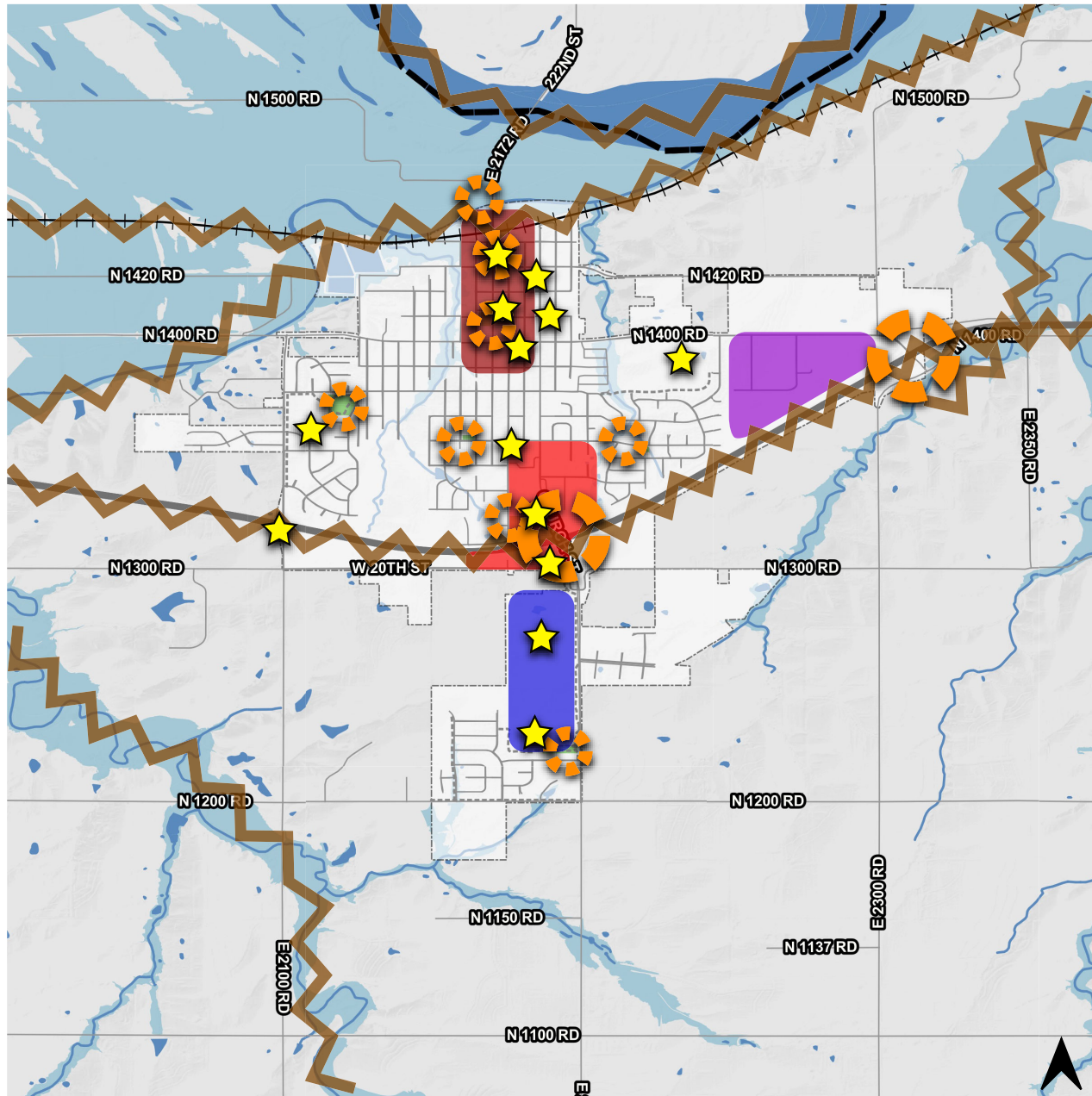
Paths are channels of movement within a city that can be comprised of streets, railroads, canals, or other navigable features. Some channels of movement within Eudora serve as both paths and edges. The railroad and K-10 facilitate movement while also acting as barriers. Streets are the primary path type within the city in addition to several multi-use paths.

Edges are linear boundary elements such as rivers, topography changes, and highways. Some edges are physical boundaries that can be easily seen, whereas others (e.g. floodplains) may provide barriers that limit the ability to develop or expand infrastructure to areas. Eudora is split north-to-south by the K-10 highway that creates an edge in the community. The Wakarusa River, Kansas River, and their tributaries form several edges. The Burlington Northern Santa Fe (BNSF) Railroad forms an edge at the northern city limits.

Nodes represent gathering points in the community, where different types of activity occur regularly. Several nodes are present within the city limits including parks, highway interchanges, and the boat ramp.

Landmarks are an external place or feature that can be used as a reference point as one navigates a city. Landmarks within Eudora consist of historical architecture or schools. In addition to schools there are several other architectural landmarks in Eudora including the Charles Pilla House (1894), Salem Chapel (1870), Old Holy Family Catholic Church (1864), and agriculture silos at the intersection of Main Street and the BNSF Railroad.

5 | Key Planning Implications



Legend











 District	 Railroad
 Path	 Park
 Edge	 Hydrology
 Node	 County
 Landmark	 City Limits



Figure 5-2 | Visual Analysis

5.6 Summary

This Existing Conditions Report includes key facts and features about the Eudora Planning Area. Subjects reviewed include the community history, physical features, population demographics, economic conditions, and facilities and services of the area.

The information contained in this report provides a baseline of understanding for planning in Eudora. In the Comprehensive Plan process these facts and figures will be used as reference points to benchmark future goals, guiding principles, and implementation actions.